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EPA Region 5 Records Ctr.



201024

June 27, 2003

Ms. Eileen Furey, Esq.
Associate Regional Counsel (C-14J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Street
Chicago, Illinois 60604-3507

Re: Request for Information Pursuant to Section 104(e) of CERCLA for Allied Paper/Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan

Dear Ms. Furey:

Enclosed, please find the City of Kalamazoo's response to the Section 104(e) Information Request from the U.S. Environmental Protection Agency (U.S. EPA) dated March 28, 2003. Per our phone conversation on April 16, 2003 and subsequent letter dated the same day, the time limit for responding to this request was extended by 30 days to June 28, 2003.

A great deal of time and effort has been expended by City of Kalamazoo personnel to respond to this request for information and, to the greatest extent possible, all available requested information is being provided. However, the City reserves its right to amend or supplement its response if new, relevant information is located.

The City of Kalamazoo has retained documents relating to the information request dating back to 1955 – the year in which the POTW first began operating. There is very little evidence indicating that PCBs were discharged to the POTW or that those PCBs were ultimately discharged to the Kalamazoo River. One would expect that, for the most part, any PCBs that were discharged to the system would have remained bound to the carbonaceous sludge material associated with the primary treatment system and would not have been discharged as effluent to the Kalamazoo River. To the extent that PCBs may have been discharged to the River, the POTW would have acted merely as a “pass through” entity rather than an entity that arranged for the disposal of PCBs.

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In responding to U.S. EPA's information request, the City has identified a small number of PCB detections associated with the POTW. We believe that the circumstances surrounding two of those detections merit further discussion. The first instance is a series of three influent "detections" from samples taken between June and September, 1987 from Georgia Pacific ((0.03 micrograms per liter (ppb)), BASF-Inmont (0.05 ppb), and Upjohn (0.05 ppb) (See Attachment 2). These reported detections of PCBs are below the level that is quantifiable for PCBs under the Part 8 Rules promulgated under the Michigan Natural Resources and Environmental Protection Act, Part 31. The Part 8 Rules provide procedures for determining the appropriate effluent limits for toxic substances discharging to surface waters. These are referred to as the Water Quality Based Effluent Limits ("WQBELs"). Rule 1213 specifies that the minimum level ("ML") is the lowest level that can be quantified for the purpose of determining compliance with standards applicable for the discharge of toxic substances to surface waters. The ML currently specified by the Michigan Department of Environmental Quality ("MDEQ") for National Pollutant Discharge Elimination System ("NPDES") Permits is 0.1 ppb. Under Rule 1213 any reported measurement below this level is not considered to be a valid, quantifiable measurement. Additionally, the POTW's 1989 NPDES permit specified a PCB detection limit of 0.2 ppb. (See Attachment 9). For the reasons cited above we believe that the reported detections of PCBs contained in Attachment 2, all of which are below the recognized ML for PCBs, are invalid for the purpose of establishing that PCBs were discharged to the sewer system.

The second instance occurred in the November/December, 1990 timeframe when final effluent measurements identified PCBs at 2.8 ppb and 3.3 ppb¹. The City immediately conducted an investigation to determine the source of the PCBs and found the cause to be vandals who spilled PCB-containing oil on an industrial rooftop as part of their attempt to salvage copper from transformers. (See City of Kalamazoo Police Report, Attachment 12). The oil flowed into the POTW and the associated PCBs were identified in the November/December, 1990 sampling events for the final effluent, incinerator ash, belt press cake, and filter press cake. (See Attachment 5). Because the City was not involved in any way with the release and it had no contractual relationship with the vandals, we believe that this is a circumstance that falls squarely within CERCLA's "third-party defense", 42 U.S.C. 9601(b)(3).

¹ There appears to be a discrepancy regarding the 2.8 ppb exceedence reported in December, 1990 (Attachment 5). The data report from the analytical lab shows a value of 0.028 mg/L (or 28 ppb), however a value to 2.8 ppb was reported in the City's Discharge Monitoring Report ("DMR"). The 3.3 ppb value also reported for December, 1990 appears to be correct. We were unable to confirm whether the error was with the lab (i.e., that the value really should have been 2.8 ppb) or whether it was a transcription error with the City employee who completed the DMR.

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Finally, the City would like to request a meeting with you and others at U.S. EPA Region 5 so that we may discuss the resolution of this matter, including a possible de minimis settlement. In the mean time, if you should have any questions, please do not hesitate to contact me.

Very truly yours,



Robert H. Cinabro
City Attorney

cc: Pat DiGiovanni, City Manager
R. Keith Overly, Deputy City Manager
Bruce Merchant, Wastewater Superintendent
Carolyn Rutland, Senior Civil Engineer
Dave Tripp, Esq.
Bill Schikora, Esq.

City of Kalamazoo
Response to 104(e) Information Request
Kalamazoo River Superfund Site

1. The following persons were consulted in the preparation of the response to this Information Request.

Robert H. Cinabro, City Attorney, City of Kalamazoo
Keith Overly, Deputy City Manager, City of Kalamazoo
Kenneth P. Collard, Public Services Managing Director, City of Kalamazoo
Carolyn Rutland, Environmental Engineer, City of Kalamazoo
Bruce E. Merchant, Wastewater Superintendent, City of Kalamazoo
Richard Beardslee, Wastewater System Manager, City of Kalamazoo
Sue Foune, Technical Services Manager, City of Kalamazoo
Michael Wetzel, Assistant City Engineer, City of Kalamazoo
Robert O'Day, Industrial Inspections Supervisor, City of Kalamazoo
Ronald Janssen, Pilot Plant Supervisor, City of Kalamazoo
Dena Wisdom-Modert, Wastewater Accounts Coordinator, City of Kalamazoo
Michelle Taubert, Assistant Training/Safety Specialist, City of Kalamazoo
John Ward, Industrial Pretreatment Program (IPP) Inspector, City of Kalamazoo
Sandy Kuilema, IPP Inspector, City of Kalamazoo
Steve Rochow, IPP Inspector, City of Kalamazoo
Mark Stevens, Water Resources Support Specialist, City of Kalamazoo
Chad Howell, Development Manager , City of Kalamazoo
Bruce Minsley, retired (former Public Services Deputy Director, City of Kalamazoo)
Charles E. Powers, retired (former Wastewater Superintendent, City of Kalamazoo)
Robert E. DeMink, retired (former Wastewater Superintendent, City of Kalamazoo)
Dail Hollopeter, Principal, Jones & Henry Consulting Engineers, Toledo, Ohio
William R. Schikora, Attorney, Dykema Gossett, Detroit, Michigan
David Tripp, Attorney, Dykema Gossett, Detroit, Michigan

2. Copies of the documents directly pertinent to the City's response are enclosed. The City reviewed voluminous documents in preparing its response to this request, and it is not possible to identify every document reviewed. Questions regarding specific documents or related to the magnitude of documents consulted can be addressed to Bruce Merchant, City of Kalamazoo Wastewater Superintendent, at (269) 337-8711. These files are available for direct review by the U.S. EPA at the City of Kalamazoo Water Reclamation Plant, 1415 North Harrison Street, Kalamazoo, Michigan 49007-2565. A CD-ROM with the Discharge Monthly Report file, solids disposal information, various laboratory data, and process-specific information files is provided for your convenience.
3. A list of former employees of the City of Kalamazoo or their consulting engineers, Jones & Henry of Toledo, Ohio who may have additional information relevant to this request are provided below:

Orlin K. Loen, retired, City of Kalamazoo Public Services Managing Director
1615 Royce Avenue
Kalamazoo, Michigan 49001
(269) 342-4142
Employed by the City of Kalamazoo:
From: March 1, 1961
To: March 24, 1992

Donald Swets, retired, City of Kalamazoo Public Works Director
9241 West Broward Boulevard
Plantation, Florida 33324
(954) 452-4747
Employed by the City of Kalamazoo:
From: April 1, 1952
To: March 1, 1983

4. The POTW (Publicly-Owned Treatment Works) has been owned and operated by the City of Kalamazoo since its start-up in February of 1955. The POTW has been known by several names including:

1955 through 1971 – City of Kalamazoo Sewage Treatment Works
1972 through 1981 – City of Kalamazoo Water Pollution Control Facility
1982 through 1985 – City of Kalamazoo Wastewater Treatment Plant
1986 through present – City of Kalamazoo Water Reclamation Plant

Throughout its existence, the City of Kalamazoo POTW has been located at 1415 North Harrison Street, Kalamazoo, Michigan 49007-2565.

5. Since the time of its construction in 1955 until the present, the City's POTW has been owned and operated by the City of Kalamazoo. Throughout its existence, the POTW has been located at 1415 North Harrison Street, Kalamazoo, Michigan 49007-2565.
6. Yes.
7. See attached list (Attachment 1). Please note that, except for Graphics Packaging, all the other paper production facilities formerly serviced by the City's POTW are no longer in business and most of those facilities have been demolished. Very little contact information remains but what is available has been provided.
8. Yes.
9. Please see Attachment 2.

10. The attached diagrams (Attachment #3) show (via line diagram) the flow schema at the City of Kalamazoo POTW throughout its existence. The comments at the bottom of each sheet indicate the maximum hydraulic design wastewater flow rates. Please note that the City of Kalamazoo has always maintained separate sanitary and storm sewer systems. Consequently, differences between dry weather and wet weather flows have been nominal throughout the existence of the POTW. A narrative description of the how the process changed with time, including when primary, secondary, and post-secondary treatment were brought on-line, is discussed below.

Phase I

The initial treatment plant used primary treatment and began operation in February 1955 with a design flow of 12.0 millions of gallons per day (MGD). The facility then consisted of comminutors (for shredding particles in the wastewater) and grit tanks (for the removal of sand and other heavy debris) prior to pumping of the raw wastewater. Sanitary sewers transporting wastewater to the facility were quite deep (greater than 10 feet below ground) so the wastewater had to be lifted up by pumps for treatment. After pumping, the wastewater flowed through a “vacuator”, which was a domed structure that allowed pumps to draw a slight vacuum above the wastewater. This was used to draw scum and grease to the surface where it was skimmed off. The wastewater then flowed to flocculation tanks. These tanks were used to add chemicals and provide mixing to create larger particles. These then flowed with the wastewater into large circular tanks called clarifiers. The clarifiers allowed the solid particles to settle out and be removed. The clarified water was then disinfected with chlorine gas before discharging to the Kalamazoo River.

Solids from the primary clarifiers were sent to anaerobic digestion facilities. These large tanks provided treatment for the sludge. Digested solids were either dewatered using vacuum filters or sent to drying beds.

Phase II

In May 1967, the City of Kalamazoo Wastewater Treatment Plant was expanded to include secondary treatment. This secondary treatment process took the wastewater from the primary clarification process and further treated it using aerobic digestion. This consists of microscopic organisms that were mixed with the wastewater using large surface aerators. Wastewater from this process was then allowed to settle out in the secondary clarifiers (to recover the microorganisms so they could be reused in the aerobic process). This secondary effluent was then disinfected with chlorine gas and discharged to the Kalamazoo River.

Once the secondary treatment system was installed, wastewater flows from various papermaking facilities, that had already received primary treatment at the individual mills, began to be discharged to the City's treatment plant. Because these paper mill flows had already received primary treatment, they were added directly to the secondary treatment process. Two other significant changes were made at this time; the flocculation tanks were taken out of service, and off-site sludge lagoons were constructed. Digested sludge was pumped via pipeline up to these off-site lagoons (located approximately 2.5 to 3 miles from the Wastewater Treatment Plant) for further dewatering and disposal. Total design flow of the plant at that time was 34.0 MGD, of which 12.0 MGD was designated as domestic flow and 34.0 for the secondary flow rate.

Phase III

The next phase of treatment at the City of Kalamazoo Wastewater Treatment Plant began in April 1971. To facilitate solids disposal, a low-pressure oxidation (LPO) process was added at that time. This system was able to process undigested solids through a "pressure cooker" style process which stabilized the solids making them much easier to dewater and treat. A Nichols-Hershoff multiple-hearth sludge incinerator was also installed and became operational in April 1972. This provided a much more efficient way to handle solids and the incinerator decreased the volume of solids requiring off-site disposal. Total design flow of the plant remained at 34.0 MGD with 12.0 MGD designated as primary, domestic flow and 34.0 MGD the design flow rate for secondary treatment.

Phase IV

A major shift in treatment at the City of Kalamazoo Water Reclamation Plant was initiated in September 1985. The centerpiece of this upgrade was the addition of powdered activated carbon (PAC) to the secondary aerobic digestion process. PAC was selected based on its ability to remove trace organic compounds. Other additions included the conversion of the former anaerobic digesters to gravity thickeners (in order to allow the separate thickening of primary and secondary solids) and an intermediate-pressure oxidation (IPO)/wet-air regeneration (WAR) process to reactivate and recycle the powdered activated carbon (PAC).

Other additions at this time included fine rotary screens for the industrial (paper mill) flows, conversion of the original primary clarifiers to provide additional primary treatment to the paper mill flows, construction of six (6) new rectangular municipal primary settling tanks, and ten (10) rapid sand filtration filters to polish the secondary effluent prior to discharge to the Kalamazoo River. Several older process units (e.g., the vacuator) were demolished or converted to new uses.

Total design flows and capacity of the system was also significantly modified. The new total design flow (average daily) was 54.0 MGD. The peak hourly design flow was (and still is) 100.0 MGD.

Three other significant changes occurred during this time period. First, a differential sedimentation/elutriation (DSE) process was added to treat flows from the WAR process. This helped to keep the solids build-up at controllable levels. Second, belt filter presses were installed in the early 1990s to replace the old vacuum filters. Third, in February 1995, the City began operating a 50,000 gallon per day (gpd) pilot plant facility that mimics the main plant's secondary and tertiary processes. This pilot facility was an actual treatment plant for a hospital in the Detroit area and was converted, placed inside a building and started up for use as a testing facility by the City of Kalamazoo. Results generated by operating this pilot plant have proven to be very helpful in modify and enhancing the overall treatment process.

Phase V

As discussed above, the pilot plant facility has been used extensively to enhance the wastewater treatment process. This has led to the latest operational change at the POTW. Increased regulatory requirements, high energy costs and large capital replacement costs led City staff to shut down the sludge incinerator in January 1999. The Zimpro LPO process had already been discontinued from routine use in 1990 and mothballed in 1996. In addition, an evaluation of capital equipment costs for the WAR process along with pilot plant evaluations led City staff to recommend discontinuation of the WAR process. In March 1999, the DSE process was taken out of service and the WAR process was totally shutdown in March 2002. In conjunction with consultants and after numerous site visits, a pasteurization/stabilization process was selected to treat all primary and secondary solids produced at the Water Reclamation Plant. This process heats and treats the solids with lime which allows the City to produce Class A biosolids which can be land applied on farm fields or used in other beneficial ways by the community. This process has been operational since late 2002 and is producing Class A biosolids at this time.

Because of the changes to secondary clarification, co-mingling of the paper mill flows with all other municipal influent flows and other flow-related processes, the total design (average daily) flow of the City of Kalamazoo Water Reclamation Plant decreased slightly to 47.5 MGD. The peak hourly design flow rate remains at 100 MGD.

The City of Kalamazoo has maintained a separate storm and sanitary sewer system since before 1900. This has alleviated storm-related flow difficulties such as combined sewage overflows. Consequently, inflow/infiltration flow rates are estimated to be between 5-10% of the total average daily flow rates of 29 MGD.

11. See Attachment #4 for a summary of all effluent data since May 1955. Please note that this information was compiled from extensive Discharge Monitoring Report (DMR) forms that are not included with this submittal due to the large volume of material

consulted. These records are on file and available for review at any time. This information has also been submitted to the state and federal regulatory authorities as required.

12. See Attachment #4.
13. There have been two (2) brief bypass incidents in the 1960s when connections of major sewers occurred. The first incident was on April 4 and 5, 1964. 1,500,000 gallons (1.5Mg) were discharged to the Kalamazoo River in order to connect the Spring Valley interceptor to the main influent line to the POTW. The second incident occurred on December 17, 1966. 318,000 gallons (0.318 Mg) were discharged to the Kalamazoo River over a 30 hour period in order to connect a line to the new Settling Tank Junction Chamber at the POTW. As stated in item 10. above, the City has always maintained separate storm and sanitary sewer systems. The incidents cited above occurred for no more than 48 hours and were during a time of construction and connection of key interceptors to the City of Kalamazoo POTW.
14. See Attachment #5. All the laboratory data sheets, chain-of-custody forms and report forms are available for further review if clarification is needed.
15. See Attachments #6. There have been a number of solids disposal practices and locations used by the City of Kalamazoo since the wastewater treatment plant began operation in February 1955. These disposal practices generally followed the acceptable practices employed by the wastewater treatment plant industry at that time. However, the history of solids disposal from this facility has not been as well documented as the other wastewater treatment plant processes. Numerous files have been reviewed, former employees consulted and plant operational records reviewed. However, some of the specific information, such as exact volumes, are not available throughout the entire operation of the City of Kalamazoo Wastewater Treatment Plant. Detailed below is a summary of the available information.

February 1955 through May 1967

Solids treatment at the City of Kalamazoo during this time period consisted of anaerobic digestion with vacuum filtration. Even after the addition of secondary treatment in 1967, these same methods of solids treatment were used for several more years. There appeared to be several methods of disposal that were ongoing as well during this time frame. One method was to pump the digested solids into a set of sludge drying beds located on site where the current secondary aeration tanks are located. The solids, after they were dried, were removed by hand and either landfilled or, as some information

suggests, beneficially reused on at least two (2) area golf courses, to assist in a leaf composting operation or made available to the general public for landscaping. Another method was to dewater the solids using the vacuum filters and then haul the material to a landfill. (See below for a list of landfills utilized by the City of Kalamazoo Water Reclamation Plant.) Other methods include a series of on-site waste ponds and placing the digested solids into tanker trucks for off-site disposal. The volume of solids disposed of using these various methods is listed (when available) on the form entitled "Kalamazoo Water Reclamation Plant Solids Handling February 1955 to May 1967", Attachment 6.

June 1967 through May 1971

The City of Kalamazoo obtained property on the northeast corner of East Michigan Avenue and Nazareth Avenue on the City's east side where several lagoons were constructed to receive anaerobically-digested solids. Twin six-inch sludge lines were constructed between the wastewater treatment plant and the new sludge lagoons on the east side. In June 1967, the first solids were pumped up to this new disposal site. This location is referred to as the Eastside Byproducts Solids Disposal Area (EBSDA).

June 1971 through September 1985

By June of 1971, a low-pressure oxidation (LPO) system had been installed and became operational at the City of Kalamazoo Water Reclamation Plant. This process, which involved "pressure-cooking" solids under pressure and temperature, stabilized the solids so they could be more easily dewatered for disposal or further treatment. All solids were co-thickened, both primary and secondary, and handled through the LPO system. In April 1972, a multiple-hearth Nichols-Hershoff sludge incinerator was constructed next to the existing filter building. All solids, after treatment in the LPO process, were dewatered using the vacuum filter presses. The dewatered solids were then transported by conveyor to the incinerator. The incinerator ash was disposed in a variety of locations, generally to one of the several landfills listed below. However, some incinerator ash was disposed of at the EBSDA. It was transported by truck and used to fill in some of the remaining lagoons located on that site.

October 1985 through February 1999

Several changes occurred in this time period as well. As detailed in the response to Question 10, this is when the City of Kalamazoo Water Reclamation Plant began using powdered activated carbon (PAC) in its secondary treatment process. Part of this process was to regenerate the PAC onsite using an intermediate-pressure oxidation (IPO) system. This process was referred to as wet-air regeneration (WAR). All wasted secondary solids, instead of being co-thickened with primary solids, were thickened separately and then regenerated using the WAR process.

Two additional issues occurred that modified disposal issues as well during this time frame. First, solids built up in the secondary process were removed using differential/sedimentation and elutriation (DSE) system installed by Zimpro. Solids were

removed from the DSE process using plate-frame presses. The second issue was the replacement of the vacuum filters with belt filter presses in the spring of 1990.

Disposal of solids produced was still to one of the landfills identified below.

March 1999 through February 2002

In January 1999, the incinerator was also shut down and in March, 1999 the DSE process was also shut down. This allowed City of Kalamazoo personnel to manage the solids but provided an increased burden on the solids hauling company. Separate gravity thickening of secondary and primary solids was also ongoing, and solids were disposed of at one of the landfills listed below.

March 2002 through March 2003

The WAR process was taken down permanently in March 2002. Solids are co-thickened, mostly in the secondary thickeners, and then belt pressed. Occasionally, solids are heat pasteurized with lime addition to produce "Class A" biosolids. Those solids not converted into "Class A" biosolids are disposed of in one in an approved landfill.

Landfills Used for Solids Disposal

- A. City of Kalamazoo POTW
1415 North Harrison Street
Kalamazoo, Michigan 49007

Sludge drying beds – primary and secondary biosolids, some screenings and scum

- B. East Side Lagoons
NW Corner of Nazareth Road and East Michigan Avenue
Kalamazoo, Michigan 49001

Digested and partially digested biosolids, incinerator ash

- C. KL Landfill
Kalamazoo, Michigan

Digested and partially digested biosolids, incinerator ash

- D. Cork Street Landfill
Kalamazoo, Michigan

Incinerator Ash

- E. West Side Landfill

Three Rivers, Michigan

Digested and partially digested biosolids, incinerator ash

F, Orchard Hill Landfill
Watervliet, Michigan

Digested and partially digested biosolids, incinerator ash

G. BFI Landfill
Marshall, Michigan

Digested and partially digested biosolids, incinerator ash

H. Waste Management Landfill
Ottawa County
Coopersville, Michigan

Digested and partially digested biosolids

16. Please see items 7 and 9 above and Attachment #7.

17. See attached list of applicable ordinances (Attachment #8).

18. See attached set of NPDES Permits (Attachment #9).

19. See Attachment #10.

20. See Attachment # 11.

The City of Kalamazoo Water Reclamation Plant has maintained a very conservative records retention policy. All treatment records, along with a great deal of maintenance and laboratory records and engineering drawings, have been kept on site since 1955.

CITY OF KALAMAZOO DATA FILES

SECTION 104(E) REQUEST

**ALLIED PAPER/PORTAGE CREEK/KALAMAZOO RIVER
SUPERFUND SITE IN KALAMAZOO AND ALLEGAN COUNTIES**

DOCUMENTS AVAILABLE ON CD-ROM

ATTACHMENT

1

Interoffice Memo

The information found on "Attachment #4" was entered into a spreadsheet for sorting purposes.
 Attachment #4 is attached.

Table C Industries on Attachment #4 and Sorted by Company Name

Name	Division	Address	City
Allied Paper, Inc	King Mill, Monarch Mill, Bryant Mill	2030 Portage Street	Kalamazoo
Brown Company	Pulp, Paper & Board Manufacturing Division	249 East Paterson Street	Kalamazoo
Brown Company	Speciality Papers Division	100 Island Avenue	Parchment
Brown Company	Paper Division	100 Island Avenue	Parchment
Crown Vantage, Inc	Packaging Papers Group	100 Island Avenue	Parchment
Fort James Corporation	Paperboard Division	249 East Paterson Street	Kalamazoo
Georgia Pacific Corporation	Kalamazoo Business Unit Communication Papers Division	2030 Portage Street	Kalamazoo
Georgia Pacific Corporation	Paper Packaging Group	249 East Paterson Street	Kalamazoo
Georgia Pacific Corporation		2425 King Highway	Kalamazoo
Georgia Pacific Corporation	KVP Group-Parchment & Paper Divisions	100 Island Avenue	Parchment
Gould Paper Company		PO Box 2858 King Highway	Kalamazoo
Hawthorne Paper Company, Inc.		PO Box 2858 King Highway	Kalamazoo
James River Corporation		249 East Paterson Street	Kalamazoo
James River Corporation		100 Island Avenue	Parchment
Kalamazoo Paper Company		2495 King Highway	Kalamazoo
Kalamazoo Vegetable Parchment Company	Southerland Division	249 East Paterson Street	Kalamazoo
Kalamazoo Vegetable Parchment Company		100 Island Avenue	Parchment
KVP Southerland Paper Company		249 East Paterson Street	Kalamazoo
KVP Southerland Paper Company		100 Island Avenue	Parchment
Millenium Holding, Inc	Paper Mills Division-King Mill, Monarch Mill, Bryant Mill	2030 Portage Street	Kalamazoo
Minnesota Mining & Manufacturing Company	Paper Products Division		Kalamazoo
National Gypsum Company		2305 East King Highway	Kalamazoo
Nickal Paper Company		2305 East King Highway	Kalamazoo
Portage Paper Company		2030 Portage Street	Kalamazoo
Rex Paper Company		PO Box 751 King Highway	Kalamazoo
Southerland Paper Company		249 East Paterson Street	Kalamazoo

Table D Industries on Attachment #4 and Sorted by Company Address (Table C resorted)

2003 EPA-PCB REQUEST
INDUSTRIAL USERS ADDRESSES LISTED IN REQUEST

NAME	STREET NUMBER	STREET NAME	CITY	STATE	ZIP CODE	DESCRIPTION OF OPERATION	CLASSIFICATION	CURRENT OWNERS, ADDITIONS, DELETIONS, MODIFICATIONS & COMMENTS
City of Parchment	100	Island Avenue	Parchment	MI	49001			City of Parchment 650 S Riverview Dr Parchment MI 49004
Hope network Kalamazoo	2030	Portage Street	Kalamazoo	MI	49001			Hope network 3375 S Division PO Box 1412 Grand Rapids MI 49501
Kalamazoo Twp c/o D Thalff	2305	East King Hwy	Kalamazoo	MI	49001	Vacated		Kalamazoo Township
Georgia Pacific	243	East Patterson Street	Kalamazoo	MI	49007			Georgia Pacific 4455 Table Mountain Drive Golden CO 80403
Georgia Pacific Corporation	2425	King Hwy	Kalamazoo	MI	49001	Vacated		Georgia Pacific 4455 Table Mountain Drive Golden CO 80403

ATTACHMENT

2

2003 EPA-PCB REQUEST
INDUSTRIAL USERS OF THE KALAMAZOO WATER RECLAMATION PLANT ANALYZED FOR PCB'S

	NAME	STREET NUMBER	STREET NAME	CITY	STATE	ZIP CODE	DESCRIPTION OF OPERATION	CLASSIFICATION	ADDITIONS, DELETIONS, MODIFICATIONS & COMMENTS
8	A D Johnson	2129	Portage St	Kalamazoo	MI	49001	Etching of brass & steel plates	Categorical SIU	
18	Aero-Motive Company	5888	ML Ave East	Kalamazoo	MI	49001	Manufacturer of cable reels & electrical conductors	Categorical SIU	
19	AGA Gas Inc	3815	Centre St East	Kalamazoo	MI	49001	Air Separation Plant	MIU	
26	Altenderfer Residence, Gail	1625	Bacon St	Portage	MI	49002	Ground Water Remediation Project	MIU	Modified to Minor Status 1997 - Insignificant/Closure 12/15/99
27	Aluminum Finishing Company	615	Ransom St , West	Kalamazoo	MI	49007	Aluminum anodizing	Categorical SIU	
40	Applied Coatings	1830	Reed St	Kalamazoo	MI	49001	Paint shop	Categorical SIU	
42	Aramark	4384	Commercial Ave	Kalamazoo	MI	49002	Industrial Laundry	MIU	Modified to Minor Status 1997
49	Arco Container Corporation	845	Gibson St	Kalamazoo	MI	49001	Manufacturer of corrugated board	MIU	Modified to Minor Status 2002
75	Benteler Automotive Corporation	9000	Michigan Ave , East	Galesburg	MI	49053	Manufacturer of automotive parts	Categorical SIU	
88	Borgess Medical Center	1521	Gull Rd	Kalamazoo	MI	49001	Medical Care Facility	SIU	
91	Borroughs Corporation	3002	Burdick St , North	Kalamazoo	MI	49004	Manufacturer of steel furniture	Categorical SIU	
94	Bowers Manufacturing - Sprinkle Road	6615	Sprinkle Rd	Portage	MI	49002	Job shop anodizing	Categorical SIU	
97	Bronson Methodist Hospital	252	Lovell Street	Kalamazoo	MI	49007	Medical Care Facility	SIU	
135	Checker Motors Corporation	2016	Pitcher St , North	Kalamazoo	MI	49007	Stamp and die of auto parts	SIU	
141	City Management Corporation	3400	Lafayette St , East	Kalamazoo	MI	49006	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
143	City of Kalamazoo - Cork Street Landfill	241	South St , West	Kalamazoo	MI	49007	Leachate collection from landfill	SIU	
146	City of Portage - PBP	7719	Westnedge Ave , South	Portage	MI	49024	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
147	City of Portage - PMF	7719	Westnedge Ave , South	Portage	MI	49024	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
148	Clark Marketing & Refining Inc - CLR	3818	Michigan Ave , West	Kalamazoo	MI	49001	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
162	Continental Linen Services	4200	Manchester Rd	Kalamazoo	MI	49001	Industrial laundry	SIU	Contact Person Changed 10/15/02 Wes Marks left
168	Covance Research Products	6321	6th St , South	Kalamazoo	MI	49006	Rasing canines and rabbits	SIU	Name changed from HRP 1997
173	Crown Vantage Paper Company/Fort James GWRP	100	Island Ave	Parchment	MI	49004	Non-integrated fine specialty paper mill	MIU	Modified to Minor Status 1998
175	Crystal Flash Limited	3908	Westnedge Ave , South	Kalamazoo	MI	49008	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
176	Culligan Incorporated	3712	Miller Rd	Kalamazoo	MI	49001	Water treatment systems	MIU	Modified to Minor Status 1997
183	Cytec Industries Inc	2715	Miller Rd	Kalamazoo	MI	49001	Manufacturer of polymer products	Categorical SIU	
203	DesignWare	3825	Emerald Dr	Kalamazoo	MI	49001	Roll stock printing	MIU	2001 Name Changed from Contempo Colours - Modified to Minor Status 1997
206	Diapers Unlimited	814	Nola	Kalamazoo	MI	49001	Commercial diaper laundry and fabnc dyeing	SIU	
213	Domestic Linen Supply	3401	Covington Rd	Kalamazoo	MI	49001	Industrial laundry	SIU	
228	Durametallic Corporation	2014	Factory St	Kalamazoo	MI	49001	Manufacturer of mechanical sealing systems	MIU	
269	Fort James Corp - Epic Plant	400	Island Ave	Parchment	MI	49004	Paper waxing laminating folding cutting, printing	MIU	Modified to Minor Status 1997
277	Galesburg/Augusta Schools	241	Blake St	Kalamazoo	MI	49001	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
280	General Electric Company	7694	Stadium Dr	Kalamazoo	MI	49009	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
281	General Motors - Kalamazoo Metal	5200	Cork St , East	Kalamazoo	MI	49001	Automotive stamping	MIU	New ICD not Reissued - Plant Closing 7/99 Dropped to Minor Status - Plant Closed
283	General Signal Corporation	8000	Michigan Ave East	Galesburg	MI	49053	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
285	Georgia Pacific - 2015 GWRP (Parchment)	530	Riverview Drive	Parchment	MI	49004	Groundwater Remediation Project	MIU	Name changed from Fort James/Crown Vantage 8/7/2001 - Modified to Minor Status 2002
286	Georgia Pacific Corporation	2425	King Highway	Kalamazoo	MI	49001	Fine paper manufacturer	MIU	Facility Closed 12/2000 Modified to Minor Status 7/5/00 Name changed from Recycled Paper Board Mill 8/99 Name changed from Fort James Operating Co
294	Graphic Packaging Corporation	1500	Pitcher St , North	Kalamazoo	MI	49007	Waste paper manufacturing printing	Categorical SIU	
301	Green Bay Packaging	5350	Kilgore Rd , East	Kalamazoo	MI	49001	Manufacturer of corrugated cardboard boxes	SIU	
315	Harrison Packing Company	116	Ransom St , East	Kalamazoo	MI	49007	Pickle product processing	MIU	Modified to Minor Status 1997
318	Haviland Products Company	2722	Burdick St , North	Kalamazoo	MI	49007	Wholesale distribution of bulk chemicals	MIU	Modified to Minor Status 1997
330	Humphrey Products	5060	N Ave East	Kalamazoo	MI	49001	Manufacturer of pneumatic valves & gas fixtures	MIU	Modified to Minor Status 12/1999
339	Imperial Adhesives Inc	3334	Pitcher St , North	Kalamazoo	MI	49007	Manufacturer of adhesives and chalks	Out of business	Closed 1996 - See Speciality Adhesives
340	Imperial Oil Company	5115	Pickard St	Kalamazoo	MI	49001	Ground Water Remediation Project	MIU	
351	International Paper Company	4015	Emerald Dr	Kalamazoo	MI	49001	Manufacturer of corrugated board	MIU	Modified to Minor Status 2002 - Name changed from Union Camp 4/30/99
352	International Paper Incorporated	2315	Miller Rd	Kalamazoo	MI	49001	Roll Stock printing	MIU	

2003 EPA-PCB REQUEST
INDUSTRIAL USERS OF THE KALAMAZOO WATER RECLAMATION PLANT ANALYZED FOR PCB'S

	NAME	STREET NUMBER	STREET NAME	CITY	STATE	ZIP CODE	DESCRIPTION OF OPERATION	CLASSIFICATION	ADDITIONS, DELETIONS, MODIFICATIONS & COMMENTS
380	Kal County Dept of Bldgs & Grounds	2500	Lake St	Kalamazoo	MI	49001	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
382	Kalamazoo Creamery	706	Lake St	Kalamazoo	MI	49001	Producer of butter & dry milk solids	Out of business	Closed 1997
389	Kalamazoo Metal Finishers	2019	Glendenning	Kalamazoo	MI	49001	Zinc plating operation	Categorical SIU	
401	Kalamazoo Technical Furniture	6450	Valley Industrial Dr	Kalamazoo	MI	49009	Phosphating & painting of metal lab furniture	Categorical SIU	
403	Kalamazoo Valley Community College	6767	O Ave , West	Kalamazoo	MI	49009	Community College	MIU	Modified to Minor Status 1997
404	Kalamazoo Valley Group Landfill	2042	40th St , South	Climax	MI	49034	Hauled Waste - Landfill	SIU	1997 Addition
407	Kalsec, Incorporated	3713	Main St , West	Kalamazoo	MI	49001	Spice extracting	-SIU	
433	Lakeside Refining	2705	Cork St , E	Kalamazoo	MI	49001	Petroleum transfer station	MIU	Modified to Minor Status 1996 - No flow
456	Lowder's Automotive	2003	Main St , East	Kalamazoo	MI	49001	Groundwater Remediation Project	MIU	Modified to Minor Status 1996 - No flow
468	Mall City Container	2710	Pitcher St , North	Kalamazoo	MI	49007	Mfg of corrugated board containers & packaging	MIU	Modified to Minor Status 1997
488	McLan Finishing	6387	Technology Ave , Suite D	Kalamazoo	MI	49009	Metal Finishing	MIU	Facility Closed 2002 - Modified to Minor Status
497	Michigan Dept of Transportation	5673	Main St , West	Kalamazoo	MI	49009	Groundwater Remediation Project	MIU	Modified to Minor Status 1996 - No flow
501	Michigan State University-Kellogg Biological Station	3700	Gull Lake Dr , East	Hickory Corners	MI	49060	Ground Water Remediation Project	MIU	Modified to Minor Status 1996 - No flow
507	MDEQ - Midwest Aluminum	7679	Michigan Ave , West	Kalamazoo	MI	49008	Filter press dewatering of contaminated soils	MIU	Modified to Minor Status 1997
513	Millennium Holdings - Allied Paper Site	2030	Portage St	Kalamazoo	MI	49001	Allied Paper Site - Ground Water Remediation Project	SIU	Returned to SIU Status 11/6/99-Took over from EPA Modified to Minor Status 1998 - Replaced w/EPA
553	Orchard Hill Landfill	3376	Hennessey Rd	Watervliet	MI	49098	Hauled Waste - Leachate collection from landfill, Groundwater remediation project	MIU	Modified to Minor Status 1997
556	Ottawa Farms County Landfill	15550	68th Avenue	Coopersville	MI	49404	Ground Water Remediation Project	MIU	
560	Pacific Pride/Kal-Drake, Inc	3801	Covington Rd	Kalamazoo	MI	49001	Groundwater Remediation Project	MIU	1997 Addition
561	PACTIV Corporation	809	Hamson St	Kalamazoo	MI	49007	Manufacturer of corrugated packaging components	MIU	1996 Addition / 2001 Name changed from Hexacomb to PACTIV
568	Parker Abex/NWL	2220	Palmer Ave	Kalamazoo	MI	49001	Machining and anodizing of aircraft parts	Categorical SIU	
578	Pharmacia & Upjohn - Ag Farms	5300	28th St	Richland	MI	49083	Livestock Research	Categorical SIU	Listed as one SIU in 1997
579	Pharmacia & Upjohn - Downtown	301	Hennifretta St	Kalamazoo	MI	49007	Pharmaceutical Research	Categorical SIU	Listed as one SIU in 1997
580	Pharmacia & Upjohn - Kilgore Rd	2605	Kilgore Rd , East	Kalamazoo	MI	49001	Pharmaceutical mfg synthesis & formulation	Categorical SIU	Listed as one SIU in 1997
581	Pharmacia & Upjohn - Portage Rd	7171	Portage Rd	Portage	MI	49002	Formulation fermentation & chemical synthesis	Categorical SIU	Listed as one SIU in 1997
591	Portage Paper Company	401	Alcott St , East	Kalamazoo	MI	49001	Manufacturer of paper	Out of business	Closed 1997
598	Prarie Farms Dairy	95	Michigan Ave , East	Galesburg	MI	49053	Creamery	SIU	Contact Person Changed 11/13/02 - Philip Roelof retired
605	Production Plated Plastics - State of Michigan	8899	D Ave , East	Richland	MI	49083	Ground Water Remediation Project	SIU	
608	Quala Systems	2502	Sadila Rd	Kalamazoo	MI	49001	Tanker truck wash facility	Categorical SIU	
621	Rick King Campus / Federated Insurance Co	3645	Michigan Ave , West	Kalamazoo	MI	49006	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
652	Schug Farms	5015	VW Ave , West	Schoolcraft	MI	49087	Hauled Waste - Groundwater Remediation Project	MIU	Modified to Minor Status 1997
656	Schupan & Sons, Inc.	2619	Miller Rd	Kalamazoo	MI	49001	Facility accepts, sorts, & wholesales to other suppliers recyclable metals	MIU	
665	Shell Oil Company	1609	Westnedge Ave , South	Kalamazoo	MI	49001	Groundwater Remediation Project	MIU	Modified to Minor Status 1997
681	Specialty Adhesives Inc	3334	Pitcher St , North	Kalamazoo	MI	49007	Manufacturer of adhesives and chalks	MIU	Modified to Minor Status 1998
692	Star Truck Rental	3717	King Highway	Kalamazoo	MI	49001	Ground Water Remediation Project	MIU	Modified to Minor Status 1997
697	Strebor Corporation	2305	Supenor Ave	Kalamazoo	MI	49001	Ground Water Remediation Project	MIU	Modified to Minor Status 1997
700	Stryker Medical Center	6300	Sprinkle Rd	Portage	MI	49002	Hospital bed manufacturer	Categorical SIU	
705	Sun Company Incorporated	101	Rivernew Dr , North	Kalamazoo	MI	49004	Groundwater Remediation Project	MIU	Modified to Minor Status 1996 - No flow
708	Swift-Eckrich Incorporated	631	Second St	Kalamazoo	MI	49007	Meat processing facility	MIU	Closed 1997
715	Textile Systems	817	Walbridge St	Kalamazoo	MI	49007	Hospital laundry facility	SIU	
771	Welsh Mart (Welsh Oil Inc)	2375	Sprinkle Rd	Kalamazoo	MI	49001	Car Wash	MIU	1996 Addition
789	Wright Coating Company	1603	Picher St , North	Kalamazoo	MI	49007	Phosphating & powder coating of metal parts	Categorical SIU	

All PCB Results on Database (Entered as PCBs)

Tuesday, May 06, 2003

ANSWER Positive & Negative

Page 1

Indid	Samndte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
AC1	10/10/1991	PCBs	1.00	ug/l	0.00		
AC2	5/19/1993	PCBs	0.10	ug/l	0.00		
AC2	5/20/1993	PCBs	0.10	ug/l	0.00		
AC3	5/19/1993	PCBs	0.50	ug/l	0.00		
AC3	5/20/1993	PCBs	0.50	ug/l	0.00		
ACP	12/10/1991	PCBs	0.10	ug/l	0.00		
ACP	3/18/1992	PCBs	1.00	ug/l	0.00		
ACR	12/10/1991	PCBs	0.10	ug/l	0.00		
ACR	3/11/1992	PCBs	1.00	ug/l	0.00		
ACU	10/18/1991	PCBs	0.10	ug/l	0.00		
ACU	12/18/1991	PCBs	0.10	ug/l	0.00		
ADJ	3/25/1992	PCBs	0.10	ug/l	0.00		
AEP	4/29/1997	PCBs			0.10	ug/l	Semi-Annual Self Monitoring
AEP	4/29/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AEP	4/30/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AEP	12/30/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AEP	9/24/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	6/14/1995	PCBs			0.30	ug/l	Semi-Annual Self Monitoring
AER	7/11/1995	PCBs	0.10	ug/l	0.00		Resample
AER	7/12/1995	PCBs	0.10	ug/l	0.00		Resample
AER	7/13/1995	PCBs	0.10	ug/l	0.00		Resample
AER	8/8/1995	PCBs	0.10	ug/l	0.00		Compliance Monitoring
AER	12/4/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	12/5/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	4/18/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	4/19/1996	PCBs			0.30	ug/l	Semi-Annual Self Monitoring
AER	4/19/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	4/19/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
AER	10/28/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	10/29/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	4/10/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	4/11/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	11/17/1997	PCBs	0.10	ug/l	0.00		Compliance Monitoring
AER	12/5/1997	PCBs	0.50	ug/l	0.00		Semi-Annual Self Monitoring
AER	3/31/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	9/4/1998	PCBs	0.50	ug/l	0.70	ug/l	Semi-Annual Self Monitoring
AER	9/18/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
AER	10/1/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
AER	10/7/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
AER	5/30/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AER	9/17/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
AFC	1/22/1992	PCBs	0.10	ug/l	0.00		
AFC	2/6/1992	PCBs	1.00	ug/l	0.00		
ALT	4/3/1996	PCBs	0.20	ug/l	0.00		Initial Self-Monitoring
AMT	12/18/1991	PCBs	0.10	ug/l	0.00		
APC	12/2/1987	PCBs	50.00	ug/l	0.00		
APC	4/26/1988	PCBs	0.10	ug/l	0.00		
APC	5/16/1990	PCBs	5.00	ug/l	0.00		
APE	2/11/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	2/12/1999	PCBs	0.10	ug/l	0.00		Compliance Monitoring
APE	2/15/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	2/16/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	2/18/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	2/22/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	2/25/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/1/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/3/1999	PCBs	0.05	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/12/1999	PCBs			0.05	ug/l	Semi-Annual Self Monitoring
APE	3/16/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/22/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
APE	3/24/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/26/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/29/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	3/31/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/6/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/12/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/15/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/16/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/19/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/20/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/22/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/23/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/26/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/27/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/29/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	4/30/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/3/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/5/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/7/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/10/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/11/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/14/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/17/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/19/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/21/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/24/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	5/27/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	6/2/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	6/4/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	6/9/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	6/15/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	6/23/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	6/28/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	7/2/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	7/12/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	7/15/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	7/22/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	7/27/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	7/30/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	8/5/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	8/12/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	8/17/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	8/26/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	8/30/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
APE	9/2/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
ATA	8/30/1991	PCBs	0.10	ug/l	0.00		
BAT	9/4/1991	PCBs	0.10	ug/l	0.00		
BEN	10/13/1993	PCBs	0.10	ug/l	0.00		
BEN	6/28/1994	PCBs	0.50	ug/l	0.00		
BL1	1/29/1992	PCBs	0.10	ug/l	0.00		
BL2	1/29/1992	PCBs	1.00	ug/l	0.00		
BL3	1/29/1992	PCBs	0.10	ug/l	0.00		
BLS	1/23/1992	PCBs	0.10	ug/l	0.00		
BLS	1/29/1992	PCBs	10.00	ug/l	0.00		
BMF	12/18/1991	PCBs	0.10	ug/l	0.00		
BMF	10/13/1993	PCBs	0.10	ug/l	0.00		
BO4	11/19/1991	PCBs	0.10	ug/l	0.00		
BO7	11/19/1991	PCBs	10.00	ug/l	0.00		
BO8	11/19/1991	PCBs	10.00	ug/l	0.00		
BOC	1/1/1992	PCBs	1.00	ug/l	0.00		
BOC	1/15/1992	PCBs	1.00	ug/l	0.00		

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
BOC	1/16/1992	PCBs	1.00	ug/l	0.00		
BOC	1/17/1992	PCBs	1.00	ug/l	0.00		
BOC	11/23/1992	PCBs	1.00	ug/l	0.00		
BOC	11/24/1992	PCBs	1.00	ug/l	0.00		
BOC	11/25/1992	PCBs	1.00	ug/l	0.00		
BPE	12/13/1991	PCBs	0.10	ug/l	0.00		
BPE	1/22/1992	PCBs	1.00	ug/l	0.00		
BPY	12/13/1991	PCBs	0.10	ug/l	0.00		
BPY	1/22/1992	PCBs	0.10	ug/l	0.00		
BRD	11/27/1991	PCBs	2.00	ug/l	0.00		
BRE	11/27/1991	PCBs	2.00	ug/l	0.00		
BRG	11/27/1991	PCBs	2.00	ug/l	0.00		
BRH	11/27/1991	PCBs	2.00	ug/l	0.00		
BRN	11/27/1991	PCBs	2.00	ug/l	0.00		
BRO	11/27/1991	PCBs	2.00	ug/l	0.00		
BRP	11/26/1991	PCBs	2.00	ug/l	0.00		
BRQ	11/27/1991	PCBs	2.00	ug/l	0.00		
BRT	11/27/1991	PCBs	2.00	ug/l	0.00		
BWS	6/3/1992	PCBs	1.00	ug/l	0.00		
BWS	11/18/1992	PCBs	1.00	ug/l	0.00		
CFS	6/16/1994	PCBs	0.20	ug/l	0.00		
CLR	11/29/1991	PCBs	1.00	ug/l	0.00		
CLS	12/27/1991	PCBs	0.10	ug/l	0.00		
CLS	3/18/1992	PCBs	1.00	ug/l	0.00		
CMC	12/18/1991	PCBs	0.10	ug/l	0.00		
CMC	1/17/1992	PCBs	0.10	ug/l	0.00		
CUL	1/30/1992	PCBs	0.10	ug/l	0.00		
CV1	11/28/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV1	11/29/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV1	11/30/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV1	12/1/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV1	4/2/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV2	6/27/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV2	8/29/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CV2	4/2/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CVP	6/27/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
CVP	8/29/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
DBL	12/4/1991	PCBs	0.10	ug/l	0.00		
DLS	5/27/1994	PCBs	10.00	ug/l	0.00		
DMC	11/5/1991	PCBs	0.10	ug/l	0.00		
DMC	1/15/1992	PCBs	0.10	ug/l	0.00		
DMC	6/3/1992	PCBs	0.10	ug/l	0.00		
DOT	1/13/1992	PCBs	0.10	ug/l	0.00		
DPS	12/11/1991	PCBs	10.00	ug/l	0.00		
DPS	1/27/1992	PCBs	0.10	ug/l	0.00		
DPS	12/11/1992	PCBs	0.10	ug/l	0.00		
DPU	11/20/1991	PCBs	1.00	ug/l	0.00		
DPU	12/13/1991	PCBs	0.10	ug/l	0.00		
DUW	12/28/1992	PCBs	50.00	ug/l	0.00		
EKE	11/12/1991	PCBs	0.10	ug/l	0.00		
EKW	11/12/1991	PCBs	0.10	ug/l	0.00		
FB1	9/13/1991	PCBs	0.10	ug/l	0.00		
FB1	5/18/1992	PCBs	1.00	ug/l	0.00		
FB1	1/13/1993	PCBs	0.10	ug/l	0.00		
FB2	9/13/1991	PCBs	1.00	ug/l	0.00		
FB2	10/14/1991	PCBs	0.10	ug/l	0.00		
FB2	5/18/1992	PCBs	1.00	ug/l	0.00		
FB2	1/13/1993	PCBs	0.10	ug/l	0.00		
FB3	9/13/1991	PCBs	1.00	ug/l	0.00		
FB3	10/14/1991	PCBs	1.00	ug/l	0.00		
FB3	5/18/1992	PCBs	1.00	ug/l	0.00		

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
FB3	1/13/1993	PCBs	0.10	ug/l	0.00		
FB4	9/13/1991	PCBs			0.90		
FB4	10/14/1991	PCBs	0.10	ug/l	0.00		
FB4	5/19/1992	PCBs	1.00	ug/l	0.00		
FB4	1/13/1993	PCBs	0.10	ug/l	0.00		
FS4	10/16/1991	PCBs	0.10	ug/l	0.00		
GBP	10/25/1991	PCBs	0.10	ug/l	0.00		
GEC	2/16/1995	PCBs	0.10	ug/l	0.00		
GEO	12/2/1987	PCBs	50.00	ug/l	0.00		
GEO	4/25/1988	PCBs	0.10	ug/l	0.00		
GEO	4/23/1991	PCBs	0.10	ug/l	0.00		
GEO	12/19/1991	PCBs	0.10	ug/l	0.00		
GLS	4/23/1991	PCBs	0.10	ug/l	0.00		
GPS	4/1/1996	PCBs	1.00	ug/l	0.00		
GSC	8/30/1993	PCBs	0.10	ug/l	0.00		
HAT	7/24/1991	PCBs	0.10	ug/l	0.00		
HAV	1/15/1992	PCBs	0.10	ug/l	0.00		
HMH	4/26/1991	PCBs	0.10	ug/l	0.00		
HMH	1/23/1992	PCBs	0.10	ug/l	0.00		
HMH	2/5/1992	PCBs	0.10	ug/l	0.00		
HMH	3/16/1992	PCBs	0.10	ug/l	0.00		
HMH	4/5/1992	PCBs	0.10	ug/l	0.00		
HMH	5/11/1992	PCBs	0.10	ug/l	0.00		
HMH	5/20/1992	PCBs	0.10	ug/l	0.00		
HMH	6/26/1992	PCBs	0.10	ug/l	0.00		
HMH	8/23/1992	PCBs			0.11	ug/l	
HMH	9/18/1992	PCBs	0.10	ug/l	0.00		
HMH	11/10/1992	PCBs	0.10	ug/l	0.00		
HMH	11/18/1992	PCBs	0.10	ug/l	0.00		
HMH	11/25/1992	PCBs	0.10	ug/l	0.00		
HMH	12/1/1992	PCBs	0.10	ug/l	0.00		
HMH	12/18/1992	PCBs	0.10	ug/l	0.00		
HMH	12/23/1992	PCBs			0.14	ug/l	
HMH	1/4/1993	PCBs	0.10	ug/l	0.00		
HMH	2/2/1993	PCBs	0.10	ug/l	0.00		
HMH	2/8/1993	PCBs	0.10	ug/l	0.00		
HMH	2/24/1993	PCBs			0.18	ug/l	
HMH	6/3/1993	PCBs	0.20	ug/l	0.00		
HMH	6/8/1993	PCBs	0.20	ug/l	0.00		
HMH	6/11/1993	PCBs	0.20	ug/l	0.00		
HMH	6/25/1993	PCBs	0.20	ug/l	0.00		
HMH	6/26/1993	PCBs	0.20	ug/l	0.00		
HMH	6/27/1993	PCBs	0.20	ug/l	0.00		
HMH	6/30/1993	PCBs	0.20	ug/l	0.00		
HMH	7/1/1993	PCBs	0.20	ug/l	0.00		
HMH	7/2/1993	PCBs	0.20	ug/l	0.00		
HMH	7/13/1993	PCBs	0.20	ug/l	0.00		
HMH	7/14/1993	PCBs	0.20	ug/l	0.00		
HMH	7/15/1993	PCBs	0.20	ug/l	0.00		
HMH	8/21/1993	PCBs	0.20	ug/l	0.00		
HMH	8/22/1993	PCBs	0.20	ug/l	0.00		
HMH	8/23/1993	PCBs	0.20	ug/l	0.00		
HMH	8/27/1993	PCBs	0.20	ug/l	0.00		
HMH	8/28/1993	PCBs	0.20	ug/l	0.00		
HMH	9/30/1993	PCBs	0.20	ug/l	0.00		
HMH	10/1/1993	PCBs	0.20	ug/l	0.00		
HMH	10/7/1993	PCBs	0.20	ug/l	0.00		
HMH	10/8/1993	PCBs	0.20	ug/l	0.00		
HMH	10/14/1993	PCBs	0.20	ug/l	0.00		
HMH	10/15/1993	PCBs	0.20	ug/l	0.00		
HMH	11/5/1993	PCBs	0.20	ug/l	0.00		

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
HMH	11/11/1993	PCBs	0.20	ug/l	0.00		
HMH	11/12/1993	PCBs	0.20	ug/l	0.00		
HMH	11/17/1993	PCBs	0.20	ug/l	0.00		
HMH	11/19/1993	PCBs	0.20	ug/l	0.00		
HMH	11/20/1993	PCBs	0.20	ug/l	0.00		
HMH	11/24/1993	PCBs	0.20	ug/l	0.00		
HMH	11/25/1993	PCBs	0.20	ug/l	0.00		
HMH	12/1/1993	PCBs	0.10	ug/l	0.00		
HMH	12/2/1993	PCBs	0.20	ug/l	0.00		
HMH	12/3/1993	PCBs	0.20	ug/l	0.00		
HMH	12/4/1993	PCBs	0.10	ug/l	0.00		
HMH	12/5/1993	PCBs	0.20	ug/l	0.00		
HMH	12/14/1993	PCBs	0.10	ug/l	0.00		
HMH	3/23/1994	PCBs	0.20	ug/l	0.00		
HMH	3/24/1994	PCBs	0.20	ug/l	0.00		
HMH	3/31/1994	PCBs	0.20	ug/l	0.00		
HMH	4/1/1994	PCBs	0.20	ug/l	0.00		
HMH	4/2/1994	PCBs	0.20	ug/l	0.00		
HMH	4/7/1994	PCBs	0.20	ug/l	0.00		
HMH	4/8/1994	PCBs	0.20	ug/l	0.00		
HMH	4/27/1994	PCBs	0.20	ug/l	0.00		
HMH	4/28/1994	PCBs	0.20	ug/l	0.00		
HMH	4/29/1994	PCBs	0.20	ug/l	0.00		
HMH	5/19/1994	PCBs	0.20	ug/l	0.00		
HMH	5/20/1994	PCBs	0.20	ug/l	0.00		
HMH	5/21/1994	PCBs	0.20	ug/l	0.00		
HMH	5/25/1994	PCBs	0.20	ug/l	0.00		
HMH	5/26/1994	PCBs	0.20	ug/l	0.00		
HMH	7/14/1994	PCBs	0.20	ug/l	0.00		
HMH	7/15/1994	PCBs	0.20	ug/l	0.00		
HMH	7/18/1994	PCBs	0.20	ug/l	0.00		
HMH	7/20/1994	PCBs	0.20	ug/l	0.00		
HMH	7/21/1994	PCBs	0.20	ug/l	0.00		
HMH	7/26/1994	PCBs	0.20	ug/l	0.00		
HMH	7/27/1994	PCBs	0.20	ug/l	0.00		
HMH	7/29/1994	PCBs	0.20	ug/l	0.00		
HMH	8/2/1994	PCBs	0.20	ug/l	0.00		
HMH	8/3/1994	PCBs	0.20	ug/l	0.00		
HMH	8/4/1994	PCBs	0.20	ug/l	0.00		
HMH	8/10/1994	PCBs	0.20	ug/l	0.00		
HMH	8/19/1994	PCBs	0.20	ug/l	0.00		
HMH	8/24/1994	PCBs	0.20	ug/l	0.00		
HMH	9/15/1994	PCBs	0.20	ug/l	0.00		
HMH	9/16/1994	PCBs	0.20	ug/l	0.00		
HMH	10/2/1994	PCBs	0.20	ug/l	0.00		
HMH	10/25/1994	PCBs	0.20	ug/l	0.00		
HMH	10/26/1994	PCBs	0.20	ug/l	0.00		
HMH	10/27/1994	PCBs	0.20	ug/l	0.00		
HMH	11/22/1994	PCBs	0.10	ug/l	0.00		
HMH	11/23/1994	PCBs			0.00	ug/l	
HMH	11/24/1994	PCBs	0.10	ug/l	0.00		
HMH	11/29/1994	PCBs	0.20	ug/l	0.00		
HMH	3/8/1995	PCBs	0.20	ug/l	0.00		
HMH	4/25/1995	PCBs	0.10	ug/l	0.00		
HMH	5/17/1995	PCBs	0.20	ug/l	0.00		
HMH	5/18/1995	PCBs	0.20	ug/l	0.00		
HMH	5/31/1995	PCBs	0.20	ug/l	0.00		
HMH	6/5/1995	PCBs	0.20	ug/l	0.00		
HMH	6/7/1995	PCBs	0.20	ug/l	0.00		
HMH	6/14/1995	PCBs	0.20	ug/l	0.00		
HMH	6/15/1995	PCBs	0.20	ug/l	0.00		

Compliance Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
HMH	7/6/1995	PCBs	0.20	ug/l	0.00		
HMH	7/7/1995	PCBs	0.20	ug/l	0.00		
HMH	7/13/1995	PCBs	0.20	ug/l	0.00		
HMH	7/17/1995	PCBs	0.20	ug/l	0.00		
HMH	7/21/1995	PCBs	0.20	ug/l	0.00		
HMH	7/22/1995	PCBs	0.20	ug/l	0.00		
HMH	7/27/1995	PCBs	0.20	ug/l	0.00		
HMH	8/4/1995	PCBs	0.10	ug/l	0.00		Self-Monitoring
HMH	8/11/1995	PCBs	0.20	ug/l	0.00		
HMH	8/17/1995	PCBs	0.20	ug/l	0.00		
HMH	9/13/1995	PCBs	0.20	ug/l	0.00		
HMH	10/5/1995	PCBs	0.20	ug/l	0.00		Monthly Billing
HMH	10/10/1995	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/28/1995	PCBs	0.20	ug/l	0.00		Monthly Billing
HMH	11/29/1995	PCBs	0.20	ug/l	0.00		
HMH	1/2/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	1/3/1996	PCBs	0.20	ug/l	0.00		
HMH	3/14/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/15/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	4/22/1996	PCBs	2.00	ug/l	0.00		Semi-Annual Self Monitoring
HMH	4/29/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/2/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/3/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/8/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/10/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/13/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/16/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/17/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/21/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/29/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/30/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/3/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/4/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/5/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/7/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/13/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/1/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/3/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/9/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/10/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/11/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/12/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/18/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/19/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/25/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/26/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/1/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/7/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/8/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/15/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/22/1996	PCBs	0.20	ug/l	0.00		
HMH	8/27/1996	PCBs	0.20	ug/l	0.00		
HMH	8/29/1996	PCBs	0.20	ug/l	0.00		
HMH	9/16/1996	PCBs	0.20	ug/l	0.00		Compliance Monitoring
HMH	9/24/1996	PCBs	0.20	ug/l	0.00		Compliance Monitoring
HMH	9/26/1996	PCBs	0.20	ug/l	0.00		Compliance Monitoring
HMH	10/1/1996	PCBs	0.20	ug/l	0.00		Compliance Monitoring
HMH	10/2/1996	PCBs	0.20	ug/l	0.00		Compliance Monitoring
HMH	10/9/1996	PCBs	0.20	ug/l	0.00		Compliance Monitoring
HMH	10/10/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/17/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
HMH	11/7/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/18/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/31/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/3/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/8/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/9/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/14/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/16/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/24/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	4/29/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/6/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/7/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/12/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/14/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/21/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/29/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	5/29/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/2/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/3/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/5/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/9/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/10/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/16/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/17/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/19/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/24/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/1/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/2/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/8/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/9/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/14/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/18/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/22/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/28/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/29/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/30/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/4/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/13/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/19/1997	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	8/19/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/22/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/25/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/27/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/28/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/3/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/4/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/10/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/23/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/29/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/1/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/8/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/9/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/13/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/20/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/22/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/27/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/3/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/6/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/7/1997	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/20/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	12/9/1997	PCBs	0.10	ug/l	0.00		Enforcement Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
HMH	9/30/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/5/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/14/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	9/15/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	9/20/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	9/30/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/4/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/6/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/7/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/8/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/13/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/20/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/21/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/28/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/1/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/3/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/10/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/16/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/19/1999	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/22/1999	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	12/6/1999	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	12/9/1999	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	12/13/1999	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	12/15/1999	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	12/21/1999	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/29/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	3/13/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	4/23/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	4/25/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	4/27/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/3/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/4/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/5/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/15/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/17/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/18/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/19/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	5/30/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/1/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/2/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/3/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/5/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/6/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/7/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/12/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/14/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/15/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/16/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/17/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/18/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/19/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/20/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/21/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/26/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/27/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/28/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	7/10/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/14/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	7/21/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	8/1/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	8/7/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
HMH	8/10/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	8/17/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	8/24/2000	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	8/31/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/8/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/13/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/18/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/22/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	9/29/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/9/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	10/26/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/6/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/13/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/16/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/20/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	11/27/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	12/6/2000	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
HMH	1/1/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	1/11/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	1/23/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/2/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/5/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/6/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/8/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/9/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/10/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/12/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/13/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/18/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/22/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	2/26/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	3/2/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/4/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/7/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/10/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/15/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/19/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	3/24/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	4/6/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	4/17/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	4/25/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/2/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/8/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/21/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/25/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	5/29/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/1/2001	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HMH	6/1/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/4/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/8/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/20/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	6/27/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/5/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/12/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	7/20/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/2/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/20/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/23/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/27/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/29/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	8/30/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
HMH	9/4/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	9/10/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	9/24/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/4/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	10/16/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/4/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/13/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	11/22/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	12/6/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	12/20/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
HMH	1/9/2003	PCBs	0.10	ug/l	0.00		Compliance Monitoring
HPC	11/20/1991	PCBs	1.00	ug/l	0.00		
HPC	11/26/1991	PCBs	0.10	ug/l	0.00		
HUM	12/11/1991	PCBs	0.10	ug/l	0.00		
HUM	1/15/1992	PCBs	0.10	ug/l	0.00		
HXH	3/11/1992	PCBs	0.10	ug/l	0.00		
IEN	2/26/1992	PCBs	4.00	ug/l	0.00		
IKI	11/9/1993	PCBs	0.10	ug/l	0.00		
IMA	12/22/1994	PCBs	0.10	ug/l	0.00		
INM	12/9/1987	PCBs	50.00	ug/l	0.00		
INM	4/26/1988	PCBs	0.10	ug/l	0.00		
INP	11/12/1991	PCBs	10.00	ug/l	0.00		
INQ	11/12/1991	PCBs	0.10	ug/l	0.00		
IOC	6/30/1994	PCBs	0.40	ug/l	0.00		
JR1	11/26/1991	PCBs	10.00	ug/l	0.00		
JR2	11/26/1991	PCBs	1.00	ug/l	0.00		
JR3	11/26/1991	PCBs	0.10	ug/l	0.00		
JR5	11/26/1991	PCBs	0.10	ug/l	0.00		
JRC	12/2/1987	PCBs	40.00	ug/l	0.00		
JRC	4/25/1988	PCBs	0.10	ug/l	0.00		
JRC	4/23/1991	PCBs	0.10	ug/l	0.00		
JRC	11/26/1991	PCBs	0.10	ug/l	0.00		
JRC	9/18/1997	PCBs	0.10	ug/l	0.00		Compliance Monitoring
JRG	11/6/1991	PCBs	1.00	ug/l	0.00		
JRG	1/9/2003	PCBs	0.10	ug/l	0.00		Compliance Monitoring
JRP	6/4/1992	PCBs	0.10	ug/l	0.00		
KAO	12/4/1991	PCBs	0.10	ug/l	0.00		
KAO	1/9/1992	PCBs	1.00	ug/l	0.00		
KBD	6/26/1995	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
KBD	6/3/1996	PCBs	0.40	ug/l	0.00		Semi-Annual Self Monitoring
KBD	11/21/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
KBS	4/5/1994	PCBs	0.10	ug/l	0.00		
KBS	8/29/1994	PCBs	0.10	ug/l	0.00		
KC1	10/30/1991	PCBs	1.00	ug/l	0.00		
KC3	10/29/1991	PCBs	0.10	ug/l	0.00		
KCC	11/13/1991	PCBs	10.00	ug/l	0.00		
KDP	7/31/1997	PCBs	0.20	ug/l	0.00		Initial Self-Monitoring
KEP	12/17/1992	PCBs	1.00	ug/l	0.00		
KGZ	2/12/1992	PCBs	0.10	ug/l	0.00		
KL1	6/15/1992	PCBs	0.10	ug/l	0.00		
KL2	6/15/1992	PCBs	0.10	ug/l	0.00		
KMF	2/5/1992	PCBs	0.10	ug/l	0.00		
KSC	11/6/1991	PCBs	10.00	ug/l	0.00		
KSD	2/19/1992	PCBs	0.10	ug/l	0.00		
KSG	2/12/1992	PCBs	0.10	ug/l	0.00		
KSH	11/8/1991	PCBs	1.00	ug/l	0.00		
KSH	11/26/1991	PCBs	0.10	ug/l	0.00		
KSH	3/3/1992	PCBs	0.10	ug/l	0.00		
KTF	6/15/1992	PCBs	0.10	ug/l	0.00		
KVG	3/13/2001	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
KVG	11/26/2001	PCBs	40.00	ug/l	0.00		Semi-Annual Self Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
LAK	10/18/1991	PCBs	0.10	ug/l	0.00		
LAK	1/8/1992	PCBs	1.00	ug/l	0.00		
LOW	7/19/1994	PCBs	0.10	ug/l	0.00		
LOW	12/20/1994	PCBs	0.20	ug/l	0.00		
LOW	5/30/1995	PCBs	5.00	ug/l	0.00		Semi-Annual Self Monitoring
LRE	11/19/1991	PCBs	10.00	ug/l	0.00		
LRE	1/8/1992	PCBs	1.00	ug/l	0.00		
LSF	10/24/1991	PCBs	0.10	ug/l	0.00		
LSF	1/22/1992	PCBs	0.10	ug/l	0.00		
LSI	3/25/1992	PCBs	0.10	ug/l	0.00		
LWS	4/21/1994	PCBs	0.20	ug/l	0.00		
LWS	2/7/1995	PCBs	0.10	ug/l	0.00		
LWS	2/8/1995	PCBs	0.10	ug/l	0.00		
MCC	1/9/1992	PCBs	0.10	ug/l	0.00		
MDS	12/17/1991	PCBs	0.10	ug/l	0.00		
MDS	11/8/1993	PCBs	0.10	ug/l	0.00		
MER	10/23/1991	PCBs	1.00	ug/l	0.00		
MID	8/19/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	8/23/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	8/23/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
MID	8/28/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	9/4/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	9/5/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	9/17/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	9/24/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MID	9/30/1996	PCBs	0.10	ug/l	0.00		Compliance Monitoring
MLF	11/9/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
MRD	4/23/1991	PCBs	0.10	ug/l	0.00		
NCA	12/2/1992	PCBs	1.00	ug/l	0.00		
NUC	12/5/1991	PCBs	0.10	ug/l	0.00		
NUC	2/5/1992	PCBs	1.00	ug/l	0.00		
OHL	12/12/1991	PCBs	0.10	ug/l	0.00		
OHL	3/12/1992	PCBs	0.10	ug/l	0.00		
OHL	5/13/1992	PCBs	0.10	ug/l	0.00		
OHL	1/14/1993	PCBs			0.11	ug/l	
OHL	12/7/1994	PCBs			0.50	ug/l	
OHL	12/12/1994	PCBs			0.60	ug/l	
OHL	12/15/1994	PCBs			0.50	ug/l	
OHL	6/29/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
OHL	7/28/1995	PCBs	0.10	ug/l	0.00		Self-Monitoring
OHL	8/3/1995	PCBs	0.10	ug/l	0.00		Self-Monitoring
OHL	8/11/1995	PCBs	0.10	ug/l	0.00		Required for Discharge
OHL	8/18/1995	PCBs	0.10	ug/l	0.00		Required for Discharge
OHL	8/25/1995	PCBs	0.10	ug/l	0.00		Required for Discharge
OHL	9/8/1995	PCBs	0.10	ug/l	0.00		Required for Discharge
OHL	9/18/1995	PCBs	0.10	ug/l	0.00		Required for Discharge
OHL	10/26/1995	PCBs	0.10	ug/l	0.00		
OHL	12/7/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
OHL	1/2/1996	PCBs	0.10	ug/l	0.00		
OHL	1/31/1996	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
OHL	2/22/1996	PCBs	0.10	ug/l	0.00		
OHL	5/28/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
OHL	10/23/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
OWE	5/5/1992	PCBs	1.00	ug/l	0.00		
OWE	6/9/1992	PCBs	0.20	ug/l	0.00		
OWE	6/26/1992	PCBs	0.20	ug/l	0.00		
PAR	4/23/1991	PCBs	0.10	ug/l	0.00		
PBP	1/16/1992	PCBs	0.10	ug/l	0.00		
PLI	9/26/1991	PCBs	0.10	ug/l	0.00		
PLI	11/9/1993	PCBs	0.10	ug/l	0.00		
PMF	1/12/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
PN1	3/4/1992	PCBs	10.00	ug/l	0.00		
PN1	1/6/1993	PCBs	0.80	ug/l	0.00		
PN1	11/17/1993	PCBs	0.20	ug/l	0.00		
PN2	3/4/1992	PCBs	0.10	ug/l	0.00		
PN2	5/14/1992	PCBs	27.00	ug/l	0.00		
PN4	3/4/1992	PCBs	0.10	ug/l	0.00		
PN4	5/14/1992	PCBs	17.00	ug/l	0.00		
PN4	1/6/1993	PCBs	0.20	ug/l	0.00		
PN4	11/17/1993	PCBs	0.10	ug/l	0.00		
PNA	11/17/1993	PCBs	1.30	ug/l	0.00		
PNA	5/16/1994	PCBs	1.00	ug/l	0.00		
PNC	2/20/1992	PCBs	0.10	ug/l	0.00		
PNC	11/17/1993	PCBs	0.10	ug/l	0.00		
PNC	5/16/1994	PCBs	1.00	ug/l	0.00		
POP	10/1/1992	PCBs	100.00	ug/l	0.00		
POP	11/20/1992	PCBs	0.10	ug/l	0.00		
POR	4/23/1991	PCBs	0.10	ug/l	0.00		
POR	3/29/1995	PCBs	1.00	ug/l	0.00		
PPP	12/5/1991	PCBs	0.10	ug/l	0.00		
PPP4	1/20/2003	PCBs	0.10	ug/l	0.00		
RAM	9/4/1991	PCBs	0.10	ug/l	0.00		
RKC	6/9/1995	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
RKC	12/4/1995	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
RKC	5/28/1996	PCBs	0.20	ug/l	0.00		Semi-Annual Self Monitoring
RLF	11/6/1991	PCBs	1.00	ug/l	0.00		
SCM	11/14/1991	PCBs	1.00	ug/l	0.00		
SGO	9/11/1991	PCBs	0.10	ug/l	0.00		
SGP	11/14/1995	PCBs	0.10	ug/l	0.00		INITIAL SELF-MONITORING
SPA	2/1/1996	PCBs	0.50	ug/l	0.00		Initial Monitoring
SPA	4/18/1996	PCBs	0.40	ug/l	0.00		Semi-Annual Self Monitoring
SSI	11/6/1991	PCBs	1.00	ug/l	0.00		
SSI	11/12/1991	PCBs	0.10	ug/l	0.00		
SSS	1/23/1992	PCBs	0.10	ug/l	0.00		
STB	11/2/1992	PCBs	1.00	ug/l	0.00		
STBR	3/24/1992	PCBs	0.10	ug/l	0.00		
STM	4/15/1994	PCBs	0.10	ug/l	0.00		
STR	1/13/1992	PCBs	1.00	ug/l	0.00		
SUM	11/22/1991	PCBs	0.10	ug/l	0.00		
TEX	11/26/1991	PCBs	0.10	ug/l	0.00		
TNT	11/5/1991	PCBs	0.10	ug/l	0.00		
TNT	12/9/1991	PCBs	0.20	ug/l	0.00		
TOD	11/22/1991	PCBs	0.10	ug/l	0.00		
TOD	4/18/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
TOD	9/29/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
TOD	2/6/1996	PCBs	1.00	ug/l	0.00		Semi-Annual Self Monitoring
TRI	11/20/1991	PCBs	1.00	ug/l	0.00		
UCC	10/18/1991	PCBs	0.10	ug/l	0.00		
UCC	11/14/1991	PCBs	1.00	ug/l	0.00		
UJ5	4/28/1994	PCBs	0.10	ug/l	0.00		
UJA	11/5/1991	PCBs	10.00	ug/l	0.00		
UJB	12/9/1987	PCBs	50.00	ug/l	0.00		
UJB	4/26/1988	PCBs	0.10	ug/l	0.00		
UJB	4/23/1991	PCBs	0.10	ug/l	0.00		
UJB	11/7/1991	PCBs	10.00	ug/l	0.00		
UJB	9/20/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJC	11/7/1991	PCBs	0.10	ug/l	0.00		
UJD	11/7/1991	PCBs	0.10	ug/l	0.00		
UJD	2/21/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJD	8/27/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJD	8/14/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJF	11/5/1991	PCBs	1.00	ug/l	0.00		

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
UJF	7/28/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJJ	5/6/1993	PCBs	0.10	ug/l	0.00		
UJK	11/5/1991	PCBs			0.16		
UJK	2/6/1992	PCBs	0.10	ug/l	0.00		
UJK	5/15/1992	PCBs	1.00	ug/l	0.00		
UJK	9/1/1992	PCBs	0.10	ug/l	0.00		
UJK	9/2/1992	PCBs	0.10	ug/l	0.00		
UJK	9/3/1992	PCBs	0.10	ug/l	0.00		
UJK	11/18/1992	PCBs	0.10	ug/l	0.00		
UJK	4/28/1993	PCBs	1.00	ug/l	0.00		
UJK	4/29/1993	PCBs	0.10	ug/l	0.00		
UJK	5/27/1993	PCBs			0.30	ug/l	
UJK	11/30/1993	PCBs	0.10	ug/l	0.00		
UJK	4/28/1994	PCBs	0.10	ug/l	0.00		
UJK	7/28/1994	PCBs	0.10	ug/l	0.00		
UJK	7/29/1994	PCBs	0.10	ug/l	0.00		
UJK	4/4/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	5/5/1995	PCBs	0.00	ug/l	0.00		MEMP
UJK	8/22/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	8/23/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	8/24/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	2/15/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	7/18/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	1/14/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	10/2/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	11/17/1997	PCBs	0.10	ug/l	0.00		Compliance Monitoring
UJK	1/20/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	8/11/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	2/2/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	8/11/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	2/2/2000	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	2/9/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	8/15/2001	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJK	8/19/2002	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJM	4/28/1993	PCBs	0.10	ug/l	0.00		
UJP	11/8/1991	PCBs	0.10	ug/l	0.00		
UJQ	5/5/1993	PCBs	0.10	ug/l	0.00		
UJR	6/2/1992	PCBs	0.10	ug/l	0.00		
UJS	11/7/1991	PCBs	0.10	ug/l	0.00		
UJS	4/30/1993	PCBs	0.10	ug/l	0.00		
UJS	11/18/1997	PCBs	0.10	ug/l	0.00		Compliance Monitoring
UJT	11/8/1991	PCBs	0.10	ug/l	0.00		
UJV	11/7/1991	PCBs			0.21	ug/l	
UJV	2/6/1992	PCBs	1.00	ug/l	0.00		
UJV	5/1/1992	PCBs	0.10	ug/l	0.00		
UJV	5/29/1992	PCBs			1.00	ug/l	
UJV	9/10/1992	PCBs	0.10	ug/l	0.00		
UJV	9/11/1992	PCBs	0.10	ug/l	0.00		
UJV	9/12/1992	PCBs	0.10	ug/l	0.00		
UJV	11/19/1992	PCBs	0.10	ug/l	0.00		
UJV	4/28/1993	PCBs	0.10	ug/l	0.00		
UJV	4/29/1993	PCBs	0.10	ug/l	0.00		
UJV	5/27/1993	PCBs			2.30	ug/l	
UJV	11/30/1993	PCBs			0.74	ug/l	
UJV	4/26/1994	PCBs			0.43	ug/l	
UJV	10/19/1994	PCBs	0.10	ug/l	0.00		
UJV	11/29/1994	PCBs	0.10	ug/l	0.00		
UJV	3/28/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJV	3/29/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJV	3/30/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJV	7/25/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
UVJ	2/27/1996	PCBs			0.40	ug/l	Semi-Annual Self Monitoring
UVJ	8/21/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	1/9/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	1/10/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	6/3/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	11/7/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	1/15/1998	PCBs			0.20	ug/l	Semi-Annual Self Monitoring
UVJ	2/17/1998	PCBs			0.20	ug/l	Enforcement Monitoring
UVJ	2/18/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
UVJ	2/19/1998	PCBs			0.40	ug/l	Enforcement Monitoring
UVJ	3/16/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
UVJ	3/17/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
UVJ	3/18/1998	PCBs	0.10	ug/l	0.00		Enforcement Monitoring
UVJ	8/4/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	2/9/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	8/10/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UVJ	2/23/2000	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	11/7/1991	PCBs			1.20	ug/l	
UJX	2/6/1992	PCBs	10.00	ug/l	0.00		
UJX	5/29/1992	PCBs	0.10	ug/l	0.00		
UJX	4/28/1993	PCBs	0.10	ug/l	0.00		
UJX	4/30/1993	PCBs	0.10	ug/l	0.00		
UJX	5/27/1993	PCBs			0.70	ug/l	
UJX	11/30/1993	PCBs	0.10	ug/l	0.00		
UJX	4/26/1994	PCBs	0.10	ug/l	0.00		
UJX	11/29/1994	PCBs	0.10	ug/l	0.00		
UJX	3/28/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	7/25/1995	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	2/2/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	7/16/1996	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	6/3/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	10/2/1997	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	11/17/1997	PCBs	0.10	ug/l	0.00		Compliance Monitoring
UJX	1/19/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	7/14/1998	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	2/9/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	8/4/1999	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
UJX	2/4/2000	PCBs	0.10	ug/l	0.00		Semi-Annual Self Monitoring
VIC	4/23/1991	PCBs	0.10	ug/l	0.00		
VPL	11/13/1991	PCBs	1.00	ug/l	0.00		
VSS	6/16/1992	PCBs	50.00	ug/l	0.00		
WC2	11/7/1991	PCBs	0.10	ug/l	0.00		
WEL	1/15/1992	PCBs	0.10	ug/l	0.00		
WEL	3/23/1992	PCBs	0.10	ug/l	0.00		
WEL	6/9/1992	PCBs	0.10	ug/l	0.00		
WEL	12/1/1992	PCBs	0.19	ug/l	0.00		
WEL	6/1/1993	PCBs	0.40	ug/l	0.00		
WEL	12/1/1993	PCBs	0.40	ug/l	0.00		
WLI	11/13/1991	PCBs	1.00	ug/l	0.00		
WM5	11/12/1991	PCBs	1.00	ug/l	0.00		
WM5	12/2/1992	PCBs	1.00	ug/l	0.00		
WM7	11/12/1991	PCBs	1.00	ug/l	0.00		
WM7	12/2/1992	PCBs	1.00	ug/l	0.00		
WM8	11/13/1991	PCBs	1.00	ug/l	0.00		
WM8	12/2/1992	PCBs	1.00	ug/l	0.00		
WM9	11/13/1991	PCBs	1.00	ug/l	0.00		
WM9	4/20/1994	PCBs	1.00	ug/l	0.00		
WMP	11/8/1991	PCBs	10.00	ug/l	0.00		

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
1	AC1	10/10/1991		1.00 ug/l	0.00		Cytec Industries, Incorporated	
2	AC2	5/19/1993		0.10 ug/l	0.00		Cytec Industries, Incorporated	
3	AC2	5/20/1993		0.10 ug/l	0.00		Cytec Industries, Incorporated	
4	AC3	5/19/1993		0.50 ug/l	0.00		Cytec Industries, Incorporated	
5	AC3	5/20/1993		0.50 ug/l	0.00		Cytec Industries, Incorporated	
6	ACP	12/10/1991		0.10 ug/l	0.00		Arvco Container Corporation	
7	ACP	3/18/1992		1.00 ug/l	0.00		Arvco Container Corporation	
8	ACR	12/10/1991		0.10 ug/l	0.00		Arvco Container Corporation	
9	ACR	3/11/1992		1.00 ug/l	0.00		Arvco Container Corporation	
10	ACU	10/18/1991		0.10 ug/l	0.00		Applied Coatings	
11	ACU	12/18/1991		0.10 ug/l	0.00		Applied Coatings	
12	ADJ	3/25/1992		0.10 ug/l	0.00		A. D. Johnson	
13	AEP	4/29/1997			0.10 ug/l		Aero-Motive Company	
14	AEP	4/29/1997		0.10 ug/l	0.00		Aero-Motive Company	
15	AEP	4/30/1997		0.10 ug/l	0.00		Aero-Motive Company	
16	AEP	12/30/1997		0.10 ug/l	0.00		Aero-Motive Company	
17	AEP	9/24/1998		0.10 ug/l	0.00		Aero-Motive Company	
18	AER	6/14/1995			0.30 ug/l		Aero-Motive Company	
19	AER	7/11/1995		0.10 ug/l	0.00		Aero-Motive Company	
20	AER	7/12/1995		0.10 ug/l	0.00		Aero-Motive Company	
21	AER	7/13/1995		0.10 ug/l	0.00		Aero-Motive Company	
22	AER	8/8/1995		0.10 ug/l	0.00		Aero-Motive Company	
23	AER	12/4/1995		0.10 ug/l	0.00		Aero-Motive Company	
24	AER	12/5/1995		0.10 ug/l	0.00		Aero-Motive Company	
25	AER	4/18/1996		0.10 ug/l	0.00		Aero-Motive Company	
26	AER	4/19/1996			0.30 ug/l		Aero-Motive Company	
27	AER	4/19/1996		0.10 ug/l	0.00		Aero-Motive Company	
28	AER	4/19/1996		0.20 ug/l	0.00		Aero-Motive Company	
29	AER	10/28/1996		0.10 ug/l	0.00		Aero-Motive Company	
30	AER	10/29/1996		0.10 ug/l	0.00		Aero-Motive Company	
31	AER	4/10/1997		0.10 ug/l	0.00		Aero-Motive Company	
32	AER	4/11/1997		0.10 ug/l	0.00		Aero-Motive Company	
33	AER	11/17/1997		0.10 ug/l	0.00		Aero-Motive Company	
34	AER	12/5/1997		0.50 ug/l	0.00		Aero-Motive Company	
35	AER	3/31/1998		0.10 ug/l	0.00		Aero-Motive Company	
36	AER	9/4/1998		0.50 ug/l	0.70 ug/l		Aero-Motive Company	
37	AER	9/18/1998		0.10 ug/l	0.00		Aero-Motive Company	
38	AER	10/1/1998		0.10 ug/l	0.00		Aero-Motive Company	
39	AER	10/7/1998		0.10 ug/l	0.00		Aero-Motive Company	
40	AER	5/30/2001		0.10 ug/l	0.00		Aero-Motive Company	
41	AER	9/17/2001		0.10 ug/l	0.00		Aero-Motive Company	
42	AER	3/4/2003		0.10 ug/l	0.00		Aero-Motive Company	
43	AFC	1/22/1992		0.10 ug/l	0.00		Aluminum Finishing Company	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name
44	AFC	2/6/1992		1.00 ug/l	0.00		Aluminum Finishing Company
45	ALT	4/3/1996		0.20 ug/l	0.00		Altenderfer, Gail
46	APE	2/11/1999		0.05 ug/l	0.00		EPA-Allied Paper
47	APE	2/12/1999		0.10 ug/l	0.00		EPA-Allied Paper
48	APE	2/15/1999		0.05 ug/l	0.00		EPA-Allied Paper
49	APE	2/16/1999		0.05 ug/l	0.00		EPA-Allied Paper
50	APE	2/18/1999		0.05 ug/l	0.00		EPA-Allied Paper
51	APE	2/22/1999		0.05 ug/l	0.00		EPA-Allied Paper
52	APE	2/25/1999		0.05 ug/l	0.00		EPA-Allied Paper
53	APE	3/1/1999		0.05 ug/l	0.00		EPA-Allied Paper
54	APE	3/3/1999		0.05 ug/l	0.00		EPA-Allied Paper
55	APE	3/12/1999			0.05 ug/l		EPA-Allied Paper
56	APE	3/16/1999		0.10 ug/l	0.00		EPA-Allied Paper
57	APE	3/22/1999		0.10 ug/l	0.00		EPA-Allied Paper
58	APE	3/24/1999		0.10 ug/l	0.00		EPA-Allied Paper
59	APE	3/26/1999		0.10 ug/l	0.00		EPA-Allied Paper
60	APE	3/29/1999		0.10 ug/l	0.00		EPA-Allied Paper
61	APE	3/31/1999		0.10 ug/l	0.00		EPA-Allied Paper
62	APE	4/6/1999		0.10 ug/l	0.00		EPA-Allied Paper
63	APE	4/12/1999		0.10 ug/l	0.00		EPA-Allied Paper
64	APE	4/15/1999		0.10 ug/l	0.00		EPA-Allied Paper
65	APE	4/16/1999		0.10 ug/l	0.00		EPA-Allied Paper
66	APE	4/19/1999		0.10 ug/l	0.00		EPA-Allied Paper
67	APE	4/20/1999		0.10 ug/l	0.00		EPA-Allied Paper
68	APE	4/22/1999		0.10 ug/l	0.00		EPA-Allied Paper
69	APE	4/23/1999		0.10 ug/l	0.00		EPA-Allied Paper
70	APE	4/26/1999		0.10 ug/l	0.00		EPA-Allied Paper
71	APE	4/27/1999		0.10 ug/l	0.00		EPA-Allied Paper
72	APE	4/29/1999		0.10 ug/l	0.00		EPA-Allied Paper
73	APE	4/30/1999		0.10 ug/l	0.00		EPA-Allied Paper
74	APE	5/3/1999		0.10 ug/l	0.00		EPA-Allied Paper
75	APE	5/5/1999		0.10 ug/l	0.00		EPA-Allied Paper
76	APE	5/7/1999		0.10 ug/l	0.00		EPA-Allied Paper
77	APE	5/10/1999		0.10 ug/l	0.00		EPA-Allied Paper
78	APE	5/11/1999		0.10 ug/l	0.00		EPA-Allied Paper
79	APE	5/14/1999		0.10 ug/l	0.00		EPA-Allied Paper
80	APE	5/17/1999		0.10 ug/l	0.00		EPA-Allied Paper
81	APE	5/19/1999		0.10 ug/l	0.00		EPA-Allied Paper
82	APE	5/21/1999		0.10 ug/l	0.00		EPA-Allied Paper
83	APE	5/24/1999		0.10 ug/l	0.00		EPA-Allied Paper
84	APE	5/27/1999		0.10 ug/l	0.00		EPA-Allied Paper
85	APE	6/2/1999		0.10 ug/l	0.00		EPA-Allied Paper
86	APE	6/4/1999		0.10 ug/l	0.00		EPA-Allied Paper

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name
87	APE	6/9/1999	0.10	ug/l	0.00		EPA-Allied Paper
88	APE	6/15/1999	0.10	ug/l	0.00		EPA-Allied Paper
89	APE	6/23/1999	0.10	ug/l	0.00		EPA-Allied Paper
90	APE	6/28/1999	0.10	ug/l	0.00		EPA-Allied Paper
91	APE	7/2/1999	0.10	ug/l	0.00		EPA-Allied Paper
92	APE	7/12/1999	0.10	ug/l	0.00		EPA-Allied Paper
93	APE	7/15/1999	0.10	ug/l	0.00		EPA-Allied Paper
94	APE	7/22/1999	0.10	ug/l	0.00		EPA-Allied Paper
95	APE	7/27/1999	0.10	ug/l	0.00		EPA-Allied Paper
96	APE	7/30/1999	0.10	ug/l	0.00		EPA-Allied Paper
97	APE	8/5/1999	0.10	ug/l	0.00		EPA-Allied Paper
98	APE	8/12/1999	0.10	ug/l	0.00		EPA-Allied Paper
99	APE	8/17/1999	0.10	ug/l	0.00		EPA-Allied Paper
100	APE	8/26/1999	0.10	ug/l	0.00		EPA-Allied Paper
101	APE	8/30/1999	0.10	ug/l	0.00		EPA-Allied Paper
102	APE	9/2/1999	0.10	ug/l	0.00		EPA-Allied Paper
103	BEN	10/13/1993	0.10	ug/l	0.00		Benteler Automotive Corporation
104	BEN	6/28/1994	0.50	ug/l	0.00		Benteler Automotive Corporation
105	BL1	1/29/1992	0.10	ug/l	0.00		Borroughs Corporation
106	BL2	1/29/1992	1.00	ug/l	0.00		Borroughs Corporation
107	BL3	1/29/1992	0.10	ug/l	0.00		Borroughs Corporation
108	BLS	1/23/1992	0.10	ug/l	0.00		Borroughs Corporation
109	BLS	1/29/1992	10.00	ug/l	0.00		Borroughs Corporation
110	BMF	12/18/1991	0.10	ug/l	0.00		Benteler Automotive Corporation
111	BMF	10/13/1993	0.10	ug/l	0.00		Benteler Automotive Corporation
112	BO4	11/19/1991	0.10	ug/l	0.00		Borgess Medical Center
113	BO7	11/19/1991	10.00	ug/l	0.00		Borgess Medical Center
114	BOC	1/1/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
115	BOC	1/15/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
116	BOC	1/16/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
117	BOC	1/17/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
118	BOC	11/23/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
119	BOC	11/24/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
120	BOC	11/25/1992	1.00	ug/l	0.00		Bowers Manufacturing - Comstock
121	BPE	12/13/1991	0.10	ug/l	0.00		Contempo Colours, Inc.
122	BPE	1/22/1992	1.00	ug/l	0.00		Contempo Colours, Inc.
123	BPY	12/13/1991	0.10	ug/l	0.00		Contempo Colours, Inc.
124	BPY	1/22/1992	0.10	ug/l	0.00		Contempo Colours, Inc.
125	BRD	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital
126	BRE	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital
127	BRG	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital
128	BRH	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital
129	BRN	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
130	BRO	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital	
131	BRP	11/26/1991	2.00	ug/l	0.00		Bronson Methodist Hospital	
132	BRQ	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital	
133	BRT	11/27/1991	2.00	ug/l	0.00		Bronson Methodist Hospital	
134	BWS	6/3/1992	1.00	ug/l	0.00		Bowers Manufacturing - Sprinkle Road	
135	BWS	11/18/1992	1.00	ug/l	0.00		Bowers Manufacturing - Sprinkle Road	
136	CFS	6/16/1994	0.20	ug/l	0.00		Crystal Flash Limited	
137	CLR	11/29/1991	1.00	ug/l	0.00		Clark Refining & Marketing, Inc.-CLR	
138	CLS	12/27/1991	0.10	ug/l	0.00		Continental Linen Services	
139	CLS	3/18/1992	1.00	ug/l	0.00		Continental Linen Services	
140	CMC	12/18/1991	0.10	ug/l	0.00		Checker Motors Corporation	
141	CMC	1/17/1992	0.10	ug/l	0.00		Checker Motors Corporation	
142	CUL	1/30/1992	0.10	ug/l	0.00		Culligan, Incorporated	
143	CV1	11/28/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
144	CV1	11/29/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
145	CV1	11/30/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
146	CV1	12/1/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
147	CV1	4/2/1996	0.10	ug/l	0.00		Crown Vantage Paper Company	
148	CV2	6/27/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
149	CV2	8/29/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
150	CV2	4/2/1996	0.10	ug/l	0.00		Crown Vantage Paper Company	
151	CVP	6/27/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
152	CVP	8/29/1995	0.10	ug/l	0.00		Crown Vantage Paper Company	
153	DLS	5/27/1994	10.00	ug/l	0.00		Domestic Linen Supply Company, Inc.	
154	DMC	11/5/1991	0.10	ug/l	0.00		Durametallic	
155	DMC	1/15/1992	0.10	ug/l	0.00		Durametallic	
156	DMC	6/3/1992	0.10	ug/l	0.00		Durametallic	
157	DOT	1/13/1992	0.10	ug/l	0.00		Michigan Department of Transportation	
158	DPU	11/20/1991	1.00	ug/l	0.00		Diapers Unlimited/Custom Care Laundry	
159	DPU	12/13/1991	0.10	ug/l	0.00		Diapers Unlimited/Custom Care Laundry	
160	EKE	11/12/1991	0.10	ug/l	0.00		Swift-Eckrich, Incorporated	
161	EKW	11/12/1991	0.10	ug/l	0.00		Swift-Eckrich, Incorporated	
162	FB1	9/13/1991	0.10	ug/l	0.00		General Motors Corporation	
163	FB1	5/18/1992	1.00	ug/l	0.00		General Motors Corporation	
164	FB1	1/13/1993	0.10	ug/l	0.00		General Motors Corporation	
165	FB2	9/13/1991	1.00	ug/l	0.00		General Motors Corporation	
166	FB2	10/14/1991	0.10	ug/l	0.00		General Motors Corporation	
167	FB2	5/18/1992	1.00	ug/l	0.00		General Motors Corporation	
168	FB2	1/13/1993	0.10	ug/l	0.00		General Motors Corporation	
169	FB3	9/13/1991	1.00	ug/l	0.00		General Motors Corporation	
170	FB3	10/14/1991	1.00	ug/l	0.00		General Motors Corporation	
171	FB3	5/18/1992	1.00	ug/l	0.00		General Motors Corporation	
172	FB3	1/13/1993	0.10	ug/l	0.00		General Motors Corporation	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
173	FB4	9/13/1991			0.90	ug/l	General Motors Corporation	
174	FB4	10/14/1991	0.10	ug/l	0.00		General Motors Corporation	
175	FB4	5/19/1992	1.00	ug/l	0.00		General Motors Corporation	
176	FB4	1/13/1993	0.10	ug/l	0.00		General Motors Corporation	
177	GBP	10/25/1991	0.10	ug/l	0.00		Green Bay Packaging	
178	GEC	2/16/1995	0.10	ug/l	0.00		General Electric Company	
179	GEO	12/2/1987	50.00	ug/l	0.00		Georgia Pacific Corporation	
180	GEO	4/25/1988	0.10	ug/l	0.00		Georgia Pacific Corporation	
181	GEO	4/23/1991	0.10	ug/l	0.00		Georgia Pacific Corporation	
182	GEO	12/19/1991	0.10	ug/l	0.00		Georgia Pacific Corporation	
183	GLS	4/23/1991	0.10	ug/l	0.00		Gull Lake Sewer & Water Authority	
184	GPS	4/1/1996	1.00	ug/l	0.00		Galesburg/Augusta Public Schools	
185	GSC	8/30/1993	0.10	ug/l	0.00		General Signal Corporation	
186	HAV	1/15/1992	0.10	ug/l	0.00		Haviland Products Company	
187	HMH	4/26/1991	0.10	ug/l	0.00		Millennium Holdings Inc.	
188	HMH	1/23/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
189	HMH	2/5/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
190	HMH	3/16/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
191	HMH	4/5/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
192	HMH	5/11/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
193	HMH	5/20/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
194	HMH	6/26/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
195	HMH	8/23/1992			0.11	ug/l	Millennium Holdings Inc.	
196	HMH	9/18/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
197	HMH	11/10/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
198	HMH	11/18/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
199	HMH	11/25/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
200	HMH	12/1/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
201	HMH	12/18/1992	0.10	ug/l	0.00		Millennium Holdings Inc.	
202	HMH	12/23/1992			0.14	ug/l	Millennium Holdings Inc.	
203	HMH	1/4/1993	0.10	ug/l	0.00		Millennium Holdings Inc.	
204	HMH	2/2/1993	0.10	ug/l	0.00		Millennium Holdings Inc.	
205	HMH	2/8/1993	0.10	ug/l	0.00		Millennium Holdings Inc.	
206	HMH	2/24/1993			0.18	ug/l	Millennium Holdings Inc.	
207	HMH	6/3/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
208	HMH	6/8/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
209	HMH	6/11/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
210	HMH	6/25/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
211	HMH	6/26/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
212	HMH	6/27/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
213	HMH	6/30/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
214	HMH	7/1/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
215	HMH	7/2/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
216	HMH	7/13/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
217	HMH	7/14/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
218	HMH	7/15/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
219	HMH	8/21/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
220	HMH	8/22/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
221	HMH	8/23/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
222	HMH	8/27/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
223	HMH	8/28/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
224	HMH	9/30/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
225	HMH	10/1/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
226	HMH	10/7/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
227	HMH	10/8/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
228	HMH	10/14/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
229	HMH	10/15/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
230	HMH	11/5/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
231	HMH	11/11/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
232	HMH	11/12/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
233	HMH	11/17/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
234	HMH	11/19/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
235	HMH	11/20/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
236	HMH	11/24/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
237	HMH	11/25/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
238	HMH	12/1/1993	0.10	ug/l	0.00		Millennium Holdings Inc.	
239	HMH	12/2/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
240	HMH	12/3/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
241	HMH	12/4/1993	0.10	ug/l	0.00		Millennium Holdings Inc.	
242	HMH	12/5/1993	0.20	ug/l	0.00		Millennium Holdings Inc.	
243	HMH	12/14/1993	0.10	ug/l	0.00		Millennium Holdings Inc.	
244	HMH	3/23/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
245	HMH	3/24/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
246	HMH	3/31/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
247	HMH	4/1/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
248	HMH	4/2/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
249	HMH	4/7/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
250	HMH	4/8/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
251	HMH	4/27/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
252	HMH	4/28/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
253	HMH	4/29/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
254	HMH	5/19/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
255	HMH	5/20/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
256	HMH	5/21/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
257	HMH	5/25/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
258	HMH	5/26/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
259	HMH	7/14/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
260	HMH	7/15/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
261	HMH	7/18/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
262	HMH	7/20/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
263	HMH	7/21/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
264	HMH	7/26/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
265	HMH	7/27/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
266	HMH	7/29/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
267	HMH	8/2/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
268	HMH	8/3/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
269	HMH	8/4/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
270	HMH	8/10/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
271	HMH	8/19/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
272	HMH	8/24/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
273	HMH	9/15/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
274	HMH	9/16/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
275	HMH	10/2/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
276	HMH	10/25/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
277	HMH	10/26/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
278	HMH	10/27/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
279	HMH	11/22/1994	0.10	ug/l	0.00		Millennium Holdings Inc.	
280	HMH	11/23/1994	0.00	ug/l			Millennium Holdings Inc.	
281	HMH	11/24/1994	0.10	ug/l	0.00		Millennium Holdings Inc.	
282	HMH	11/29/1994	0.20	ug/l	0.00		Millennium Holdings Inc.	
283	HMH	3/8/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
284	HMH	4/25/1995	0.10	ug/l	0.00		Millennium Holdings Inc.	
285	HMH	5/17/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
286	HMH	5/18/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
287	HMH	5/31/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
288	HMH	6/5/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
289	HMH	6/7/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
290	HMH	6/14/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
291	HMH	6/15/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
292	HMH	7/6/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
293	HMH	7/7/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
294	HMH	7/13/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
295	HMH	7/17/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
296	HMH	7/21/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
297	HMH	7/22/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
298	HMH	7/27/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
299	HMH	8/4/1995	0.10	ug/l	0.00		Millennium Holdings Inc.	
300	HMH	8/11/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
301	HMH	8/17/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
302	HMH	9/13/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
303	HMH	10/5/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
304	HMH	10/10/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
305	HMH	11/28/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
306	HMH	11/29/1995	0.20	ug/l	0.00		Millennium Holdings Inc.	
307	HMH	1/2/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
308	HMH	1/3/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
309	HMH	3/14/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
310	HMH	3/15/1996	0.10	ug/l	0.00		Millennium Holdings Inc.	
311	HMH	4/22/1996	2.00	ug/l	0.00		Millennium Holdings Inc.	
312	HMH	4/29/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
313	HMH	5/2/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
314	HMH	5/3/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
315	HMH	5/8/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
316	HMH	5/10/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
317	HMH	5/13/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
318	HMH	5/16/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
319	HMH	5/17/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
320	HMH	5/21/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
321	HMH	5/29/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
322	HMH	5/30/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
323	HMH	6/3/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
324	HMH	6/4/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
325	HMH	6/5/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
326	HMH	6/7/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
327	HMH	6/13/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
328	HMH	7/1/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
329	HMH	7/3/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
330	HMH	7/9/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
331	HMH	7/10/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
332	HMH	7/11/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
333	HMH	7/12/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
334	HMH	7/18/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
335	HMH	7/19/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
336	HMH	7/25/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
337	HMH	7/26/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
338	HMH	8/1/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
339	HMH	8/7/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
340	HMH	8/8/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
341	HMH	8/15/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
342	HMH	8/22/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
343	HMH	8/27/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
344	HMH	8/29/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
345	HMH	9/16/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
346	HMH	9/24/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
347	HMH	9/26/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
348	HMH	10/1/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
349	HMH	10/2/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
350	HMH	10/9/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
351	HMH	10/10/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
352	HMH	10/17/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
353	HMH	11/7/1996	0.20	ug/l	0.00		Millennium Holdings Inc.	
354	HMH	3/18/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
355	HMH	3/31/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
356	HMH	4/3/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
357	HMH	4/8/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
358	HMH	4/9/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
359	HMH	4/14/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
360	HMH	4/16/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
361	HMH	4/24/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
362	HMH	4/29/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
363	HMH	5/6/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
364	HMH	5/7/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
365	HMH	5/12/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
366	HMH	5/14/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
367	HMH	5/21/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
368	HMH	5/29/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
369	HMH	6/2/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
370	HMH	6/3/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
371	HMH	6/5/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
372	HMH	6/9/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
373	HMH	6/10/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
374	HMH	6/16/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
375	HMH	6/17/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
376	HMH	6/19/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
377	HMH	6/24/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
378	HMH	7/1/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
379	HMH	7/2/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
380	HMH	7/8/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
381	HMH	7/9/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
382	HMH	7/14/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
383	HMH	7/18/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
384	HMH	7/22/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
385	HMH	7/28/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
386	HMH	7/29/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
387	HMH	7/30/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
388	HMH	8/4/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
389	HMH	8/13/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
390	HMH	8/19/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
391	HMH	8/22/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
392	HMH	8/25/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
393	HMH	8/27/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
394	HMH	8/28/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
395	HMH	9/3/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
396	HMH	9/4/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
397	HMH	9/10/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
398	HMH	9/23/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
399	HMH	9/29/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
400	HMH	10/1/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
401	HMH	10/8/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
402	HMH	10/9/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
403	HMH	10/13/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
404	HMH	10/20/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
405	HMH	10/22/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
406	HMH	10/27/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
407	HMH	11/3/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
408	HMH	11/6/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
409	HMH	11/7/1997	0.20	ug/l	0.00		Millennium Holdings Inc.	
410	HMH	11/20/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
411	HMH	12/9/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
412	HMH	12/30/1997	0.10	ug/l	0.00		Millennium Holdings Inc.	
413	HMH	1/12/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
414	HMH	2/19/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
415	HMH	2/23/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
416	HMH	3/5/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
417	HMH	3/10/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
418	HMH	3/17/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
419	HMH	3/26/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
420	HMH	3/30/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
421	HMH	4/1/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
422	HMH	4/3/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
423	HMH	4/8/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
424	HMH	4/13/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
425	HMH	4/14/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
426	HMH	4/22/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
427	HMH	4/24/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
428	HMH	5/1/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
429	HMH	5/4/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
430	HMH	5/5/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
431	HMH	5/6/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
432	HMH	5/8/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
433	HMH	5/12/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
434	HMH	5/13/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
435	HMH	5/15/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
436	HMH	5/18/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
437	HMH	5/20/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
438	HMH	5/22/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
439	HMH	5/26/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
440	HMH	5/27/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
441	HMH	5/28/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
442	HMH	6/1/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
443	HMH	6/4/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
444	HMH	6/8/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
445	HMH	6/9/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
446	HMH	6/10/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
447	HMH	6/12/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
448	HMH	6/15/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
449	HMH	6/16/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
450	HMH	6/17/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
451	HMH	6/19/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
452	HMH	6/24/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
453	HMH	6/26/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
454	HMH	7/2/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
455	HMH	7/6/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
456	HMH	7/7/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
457	HMH	7/9/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
458	HMH	7/10/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
459	HMH	7/14/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
460	HMH	7/15/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
461	HMH	7/17/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
462	HMH	7/21/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
463	HMH	7/24/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
464	HMH	8/3/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
465	HMH	8/4/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
466	HMH	8/5/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
467	HMH	8/11/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
468	HMH	8/18/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
469	HMH	8/25/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
470	HMH	9/3/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
471	HMH	9/4/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
472	HMH	9/15/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
473	HMH	9/30/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
474	HMH	10/5/1998	0.10	ug/l	0.00		Millennium Holdings Inc.	
475	HMH	9/14/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
476	HMH	9/15/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
477	HMH	9/20/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
478	HMH	9/30/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
479	HMH	10/4/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
480	HMH	10/6/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
481	HMH	10/7/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
482	HMH	10/8/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
483	HMH	10/13/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
484	HMH	10/20/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
485	HMH	10/21/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
486	HMH	10/28/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
487	HMH	11/1/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
488	HMH	11/3/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
489	HMH	11/10/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
490	HMH	11/16/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
491	HMH	11/19/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
492	HMH	11/22/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
493	HMH	12/6/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
494	HMH	12/9/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
495	HMH	12/13/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
496	HMH	12/15/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
497	HMH	12/21/1999	0.10	ug/l	0.00		Millennium Holdings Inc.	
498	HMH	2/29/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
499	HMH	3/13/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
500	HMH	4/23/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
501	HMH	4/25/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
502	HMH	4/27/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
503	HMH	5/3/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
504	HMH	5/4/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
505	HMH	5/5/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
506	HMH	5/15/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
507	HMH	5/17/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
508	HMH	5/18/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
509	HMH	5/19/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
510	HMH	5/30/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
511	HMH	6/1/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
512	HMH	6/2/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
513	HMH	6/3/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
514	HMH	6/5/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
515	HMH	6/6/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
516	HMH	6/7/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
517	HMH	6/12/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
518	HMH	6/14/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
519	HMH	6/15/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
520	HMH	6/16/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
521	HMH	6/17/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
522	HMH	6/18/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
523	HMH	6/19/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
524	HMH	6/20/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
525	HMH	6/21/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
526	HMH	6/26/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
527	HMH	6/27/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
528	HMH	6/28/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
529	HMH	7/10/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
530	HMH	7/14/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
531	HMH	7/21/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
532	HMH	8/1/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
533	HMH	8/7/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
534	HMH	8/10/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
535	HMH	8/17/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
536	HMH	8/24/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
537	HMH	8/31/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
538	HMH	9/8/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
539	HMH	9/13/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
540	HMH	9/18/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
541	HMH	9/22/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
542	HMH	9/29/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
543	HMH	10/9/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
544	HMH	10/26/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
545	HMH	11/6/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
546	HMH	11/13/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
547	HMH	11/16/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
548	HMH	11/20/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
549	HMH	11/27/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
550	HMH	12/6/2000	0.10	ug/l	0.00		Millennium Holdings Inc.	
551	HMH	1/1/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
552	HMH	1/11/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
553	HMH	1/23/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
554	HMH	2/2/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
555	HMH	2/5/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
556	HMH	2/6/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
557	HMH	2/8/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
558	HMH	2/9/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
559	HMH	2/10/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
560	HMH	2/12/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
561	HMH	2/13/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
562	HMH	2/18/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
563	HMH	2/22/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
564	HMH	2/26/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
565	HMH	3/2/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
566	HMH	3/4/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
567	HMH	3/7/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
568	HMH	3/10/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
569	HMH	3/15/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
570	HMH	3/19/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
571	HMH	3/24/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
572	HMH	4/6/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
573	HMH	4/17/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
574	HMH	4/25/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
575	HMH	5/2/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
576	HMH	5/8/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
577	HMH	5/21/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
578	HMH	5/25/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
579	HMH	5/29/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
580	HMH	6/1/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
581	HMH	6/4/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
582	HMH	6/8/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
583	HMH	6/20/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
584	HMH	6/27/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
585	HMH	7/5/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
586	HMH	7/12/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
587	HMH	7/20/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
588	HMH	8/2/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
589	HMH	8/20/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
590	HMH	8/23/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
591	HMH	8/27/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
592	HMH	8/29/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
593	HMH	8/30/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
594	HMH	9/4/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
595	HMH	9/7/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
596	HMH	9/10/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
597	HMH	9/18/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
598	HMH	9/24/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
599	HMH	9/28/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
600	HMH	10/3/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
601	HMH	10/10/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
602	HMH	10/15/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
603	HMH	10/19/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
604	HMH	10/23/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
605	HMH	10/26/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
606	HMH	10/29/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
607	HMH	11/1/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
608	HMH	11/5/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
609	HMH	11/13/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
610	HMH	11/16/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
611	HMH	11/27/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
612	HMH	11/30/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
613	HMH	12/5/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
614	HMH	12/12/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
615	HMH	12/17/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
616	HMH	12/21/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
617	HMH	12/28/2001	0.10	ug/l	0.00		Millennium Holdings Inc.	
618	HMH	1/9/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
619	HMH	1/15/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
620	HMH	1/22/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
621	HMH	1/29/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
622	HMH	2/1/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
623	HMH	2/4/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
624	HMH	2/13/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
625	HMH	2/21/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
626	HMH	2/25/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
627	HMH	2/28/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
628	HMH	3/7/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
629	HMH	3/11/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
630	HMH	3/14/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
631	HMH	3/18/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
632	HMH	3/22/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
633	HMH	3/27/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
634	HMH	4/3/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
635	HMH	4/8/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
636	HMH	4/12/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
637	HMH	4/15/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
638	HMH	4/19/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
639	HMH	4/24/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
640	HMH	4/29/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
641	HMH	5/6/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
642	HMH	5/14/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
643	HMH	5/17/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
644	HMH	5/20/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	
645	HMH	5/24/2002	0.10	ug/l	0.00		Millennium Holdings Inc.	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name
646	HMH	5/31/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
647	HMH	6/6/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
648	HMH	6/13/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
649	HMH	6/21/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
650	HMH	6/28/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
651	HMH	8/6/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
652	HMH	8/14/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
653	HMH	8/21/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
654	HMH	8/29/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
655	HMH	9/4/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
656	HMH	9/10/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
657	HMH	9/24/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
658	HMH	10/4/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
659	HMH	10/16/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
660	HMH	11/4/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
661	HMH	11/13/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
662	HMH	11/22/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
663	HMH	12/6/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
664	HMH	12/20/2002	0.10	ug/l	0.00		Millennium Holdings Inc.
665	HMH	1/9/2003	0.10	ug/l	0.00		Millennium Holdings Inc.
666	HPC	11/20/1991	1.00	ug/l	0.00		Harrison Packing Company
667	HPC	11/26/1991	0.10	ug/l	0.00		Harrison Packing Company
668	HUM	12/11/1991	0.10	ug/l	0.00		Humphrey Products
669	HUM	1/15/1992	0.10	ug/l	0.00		Humphrey Products
670	HXH	3/11/1992	0.10	ug/l	0.00		Hexacomb
671	IMA	12/22/1994	0.10	ug/l	0.00		Imperial Adhesives
672	INP	11/12/1991	10.00	ug/l	0.00		International Paper, Incorporated
673	INQ	11/12/1991	0.10	ug/l	0.00		International Paper, Incorporated
674	IOC	6/30/1994	0.40	ug/l	0.00		Imperial Oil Company
675	JR1	11/26/1991	10.00	ug/l	0.00		Graphic Packaging Corporation
676	JR2	11/26/1991	1.00	ug/l	0.00		Graphic Packaging Corporation
677	JR3	11/26/1991	0.10	ug/l	0.00		Graphic Packaging Corporation
678	JRC	12/2/1987	40.00	ug/l	0.00		Graphic Packaging Corporation
679	JRC	4/25/1988	0.10	ug/l	0.00		Graphic Packaging Corporation
680	JRC	4/23/1991	0.10	ug/l	0.00		Graphic Packaging Corporation
681	JRC	11/26/1991	0.10	ug/l	0.00		Graphic Packaging Corporation
682	JRC	9/18/1997	0.10	ug/l	0.00		Graphic Packaging Corporation
683	JRG	11/6/1991	1.00	ug/l	0.00		Georgia Pacific Corporation - GWRP 2015
684	JRG	1/9/2003	0.10	ug/l	0.00		Georgia Pacific Corporation - GWRP 2015
685	JRP	6/4/1992	0.10	ug/l	0.00		Fort James Epic Plant
686	KBD	6/26/1995	0.20	ug/l	0.00		City Management Corporation
687	KBD	6/3/1996	0.40	ug/l	0.00		City Management Corporation
688	KBD	11/21/1996	0.20	ug/l	0.00		City Management Corporation

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689	KBS	4/5/1994		0.10	ug/l	0.00	Michigan State University	
690	KBS	8/29/1994		0.10	ug/l	0.00	Michigan State University	
691	KC1	10/30/1991		1.00	ug/l	0.00	Kalamazoo Creamery	
692	KC3	10/29/1991		0.10	ug/l	0.00	Kalamazoo Creamery	
693	KCC	11/13/1991		10.00	ug/l	0.00	Kalamazoo Valley Community College	
694	KDP	7/31/1997		0.20	ug/l	0.00	Pacific Pride/Kal-Drake Inc.	
695	KL1	6/15/1992		0.10	ug/l	0.00	Kalamazoo County Department of Buildings and Grounds	
696	KL2	6/15/1992		0.10	ug/l	0.00	Kalamazoo County Department of Buildings and Grounds	
697	KMF	2/5/1992		0.10	ug/l	0.00	Kalamazoo Metal Finishers	
698	KSC	11/6/1991		10.00	ug/l	0.00	KALSEC, Incorporated	
699	KTF	6/15/1992		0.10	ug/l	0.00	Kalamazoo Technical Furniture	
700	KVG	3/13/2001		0.20	ug/l	0.00	Kalamazoo Valley Group Landfill	
701	KVG	11/26/2001		40.00	ug/l	0.00	Kalamazoo Valley Group Landfill	
702	LAK	10/18/1991		0.10	ug/l	0.00	Lakeside Refining	
703	LAK	1/8/1992		1.00	ug/l	0.00	Lakeside Refining	
704	LOW	7/19/1994		0.10	ug/l	0.00	Lowder's Automotive	
705	LOW	12/20/1994		0.20	ug/l	0.00	Lowder's Automotive	
706	LOW	5/30/1995		5.00	ug/l	0.00	Lowder's Automotive	
707	LRE	11/19/1991		10.00	ug/l	0.00	Covance Research Products, Inc.	
708	LRE	1/8/1992		1.00	ug/l	0.00	Covance Research Products, Inc.	
709	LWS	4/21/1994		0.20	ug/l	0.00	Ottawa Farms County Landfill	
710	LWS	2/7/1995		0.10	ug/l	0.00	Ottawa Farms County Landfill	
711	LWS	2/8/1995		0.10	ug/l	0.00	Ottawa Farms County Landfill	
712	MCC	1/9/1992		0.10	ug/l	0.00	Mall City Container	
713	MDS	12/17/1991		0.10	ug/l	0.00	City of Kalamazoo - Cork St. Landfill	
714	MDS	11/8/1993		0.10	ug/l	0.00	City of Kalamazoo - Cork St. Landfill	
715	MID	8/19/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
716	MID	8/23/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
717	MID	8/28/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
718	MID	9/4/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
719	MID	9/5/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
720	MID	9/17/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
721	MID	9/24/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
722	MID	9/30/1996		0.10	ug/l	0.00	MDEQ-Midwest Aluminum	
723	MLF	11/9/2001		0.10	ug/l	0.00	McLain Finishing	
724	MRD	4/23/1991		0.10	ug/l	0.00	Meredith Metering Station	
725	NUC	12/5/1991		0.10	ug/l	0.00	Quala Systems, Inc.	
726	NUC	2/5/1992		1.00	ug/l	0.00	Quala Systems, Inc.	
727	OHL	12/12/1991		0.10	ug/l	0.00	Orchard Hill Landfill	
728	OHL	3/12/1992		0.10	ug/l	0.00	Orchard Hill Landfill	
729	OHL	5/13/1992		0.10	ug/l	0.00	Orchard Hill Landfill	
730	OHL	1/14/1993				0.11 ug/l	Orchard Hill Landfill	
731	OHL	12/7/1994				0.50 ug/l	Orchard Hill Landfill	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
732	OHL	12/12/1994			0.60	ug/l	Orchard Hill Landfill	
733	OHL	12/15/1994			0.50	ug/l	Orchard Hill Landfill	
734	OHL	6/29/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
735	OHL	7/28/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
736	OHL	8/3/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
737	OHL	8/11/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
738	OHL	8/18/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
739	OHL	8/25/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
740	OHL	9/8/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
741	OHL	9/18/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
742	OHL	10/26/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
743	OHL	12/7/1995	0.10	ug/l	0.00		Orchard Hill Landfill	
744	OHL	1/2/1996	0.10	ug/l	0.00		Orchard Hill Landfill	
745	OHL	1/31/1996	0.10	ug/l	0.00		Orchard Hill Landfill	
746	OHL	2/22/1996	0.10	ug/l	0.00		Orchard Hill Landfill	
747	OHL	5/28/1996	0.10	ug/l	0.00		Orchard Hill Landfill	
748	OHL	10/23/1996	0.10	ug/l	0.00		Orchard Hill Landfill	
749	PAR	4/23/1991	0.10	ug/l	0.00		Parchment Metering Station	
750	PBP	1/16/1992	0.10	ug/l	0.00		City of Portage-PBP	
751	PMF	1/12/1996	0.10	ug/l	0.00		City of Portage - PMF	
752	PN1	3/4/1992	10.00	ug/l	0.00		Parker Abex NWL	
753	PN1	1/6/1993	0.80	ug/l	0.00		Parker Abex NWL	
754	PN1	11/17/1993	0.20	ug/l	0.00		Parker Abex NWL	
755	PN4	3/4/1992	0.10	ug/l	0.00		Parker Abex NWL	
756	PN4	5/14/1992	17.00	ug/l	0.00		Parker Abex NWL	
757	PN4	1/6/1993	0.20	ug/l	0.00		Parker Abex NWL	
758	PN4	11/17/1993	0.10	ug/l	0.00		Parker Abex NWL	
759	PNA	11/17/1993	1.30	ug/l	0.00		Parker Abex NWL	
760	PNA	5/16/1994	1.00	ug/l	0.00		Parker Abex NWL	
761	PNC	2/20/1992	0.10	ug/l	0.00		Parker Abex NWL	
762	PNC	11/17/1993	0.10	ug/l	0.00		Parker Abex NWL	
763	PNC	5/16/1994	1.00	ug/l	0.00		Parker Abex NWL	
764	POP	10/1/1992	100.00	ug/l	0.00		Portage Paper Company, Inc.	
765	POP	11/20/1992	0.10	ug/l	0.00		Portage Paper Company, Inc.	
766	POR	4/23/1991	0.10	ug/l	0.00		Portage Creek Metering Station	
767	POR	3/29/1995	1.00	ug/l	0.00		Portage Creek Metering Station	
768	PPP	12/5/1991	0.10	ug/l	0.00		Production Plated Plastics - State of Michigan	
769	PPP4	1/20/2003	0.10	ug/l	0.00		Production Plated Plastics - State of Michigan	
770	RKC	6/9/1995	0.20	ug/l	0.00		Rick King / Federated Insurance Company	
771	RKC	12/4/1995	0.20	ug/l	0.00		Rick King / Federated Insurance Company	
772	RKC	5/28/1996	0.20	ug/l	0.00		Rick King / Federated Insurance Company	
773	RLF	11/6/1991	1.00	ug/l	0.00		Prairie Farms Dairy	
774	SGO	9/11/1991	0.10	ug/l	0.00		Sun Company, Incorporated	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
775	SGP	11/14/1995		0.10 ug/l	0.00		Schug Farms	
776	SPA	2/1/1996		0.50 ug/l	0.00		Specialty Adhesives, Incorporated	
777	SPA	4/18/1996		0.40 ug/l	0.00		Specialty Adhesives, Incorporated	
778	SSI	11/6/1991		1.00 ug/l	0.00		Schupan & Sons, Incorporated	
779	SSI	11/12/1991		0.10 ug/l	0.00		Schupan & Sons, Incorporated	
780	SSS	1/23/1992		0.10 ug/l	0.00		Shell Oil Company	
781	STB	11/2/1992		1.00 ug/l	0.00		Strebor Corporation	
782	STM	4/15/1994		0.10 ug/l	0.00		Stryker Medical	
783	STR	1/13/1992		1.00 ug/l	0.00		Star Truck Rental	
784	TEX	11/26/1991		0.10 ug/l	0.00		Textile Systems	
785	TOD	11/22/1991		0.10 ug/l	0.00		Aramark	
786	TOD	4/18/1995		0.10 ug/l	0.00		Aramark	
787	TOD	9/29/1995		0.10 ug/l	0.00		Aramark	
788	TOD	2/6/1996		1.00 ug/l	0.00		Aramark	
789	UCC	10/18/1991		0.10 ug/l	0.00		International Paper Company	
790	UCC	11/14/1991		1.00 ug/l	0.00		International Paper Company	
791	UJ5	4/28/1994		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
792	UJA	11/5/1991		10.00 ug/l	0.00		Pharmacia & Upjohn Company	
793	UJB	12/9/1987		50.00 ug/l	0.00		Pharmacia & Upjohn Company	
794	UJB	4/26/1988		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
795	UJB	4/23/1991		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
796	UJB	11/7/1991		10.00 ug/l	0.00		Pharmacia & Upjohn Company	
797	UJB	9/20/2002		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
798	UJC	11/7/1991		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
799	UJD	11/7/1991		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
800	UJD	2/21/2001		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
801	UJD	8/27/2001		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
802	UJD	8/14/2002		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
803	UJF	11/5/1991		1.00 ug/l	0.00		Pharmacia & Upjohn Company	
804	UJF	7/28/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
805	UJK	11/5/1991			0.16 ug/l		Pharmacia & Upjohn Company	
806	UJK	2/6/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
807	UJK	5/15/1992		1.00 ug/l	0.00		Pharmacia & Upjohn Company	
808	UJK	9/1/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
809	UJK	9/2/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
810	UJK	9/3/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
811	UJK	11/18/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
812	UJK	4/28/1993		1.00 ug/l	0.00		Pharmacia & Upjohn Company	
813	UJK	4/29/1993		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
814	UJK	5/27/1993			0.30 ug/l		Pharmacia & Upjohn Company	
815	UJK	11/30/1993		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
816	UJK	4/28/1994		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
817	UJK	7/28/1994		0.10 ug/l	0.00		Pharmacia & Upjohn Company	

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
818	UJK	7/29/1994		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
819	UJK	4/4/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
820	UJK	5/5/1995		0.00 ug/l	0.00		Pharmacia & Upjohn Company	
821	UJK	8/22/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
822	UJK	8/23/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
823	UJK	8/24/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
824	UJK	2/15/1996		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
825	UJK	7/18/1996		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
826	UJK	1/14/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
827	UJK	10/2/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
828	UJK	11/17/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
829	UJK	1/20/1998		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
830	UJK	8/11/1998		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
831	UJK	2/2/1999		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
832	UJK	8/11/1999		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
833	UJK	2/2/2000		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
834	UJK	2/9/2001		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
835	UJK	8/15/2001		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
836	UJK	8/19/2002		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
837	UJP	11/8/1991		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
838	UJQ	5/5/1993		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
839	UJR	6/2/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
840	UJS	11/7/1991		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
841	UJS	4/30/1993		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
842	UJS	11/18/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
843	UJT	11/8/1991		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
844	UVJ	11/7/1991			0.21 ug/l		Pharmacia & Upjohn Company	
845	UVJ	2/6/1992		1.00 ug/l	0.00		Pharmacia & Upjohn Company	
846	UVJ	5/1/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
847	UVJ	5/29/1992			1.00 ug/l		Pharmacia & Upjohn Company	
848	UVJ	9/10/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
849	UVJ	9/11/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
850	UVJ	9/12/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
851	UVJ	11/19/1992		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
852	UVJ	4/28/1993		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
853	UVJ	4/29/1993		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
854	UVJ	5/27/1993			2.30 ug/l		Pharmacia & Upjohn Company	
855	UVJ	11/30/1993			0.74 ug/l		Pharmacia & Upjohn Company	
856	UVJ	4/26/1994			0.43 ug/l		Pharmacia & Upjohn Company	
857	UVJ	10/19/1994		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
858	UVJ	11/29/1994		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
859	UVJ	3/28/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
860	UVJ	3/29/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	

List of PCB Results On The IPP
Paradox Database

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
861	UJV	3/30/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
862	UJV	7/25/1995		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
863	UJV	2/27/1996			0.40	ug/l	Pharmacia & Upjohn Company	
864	UJV	8/21/1996		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
865	UJV	1/9/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
866	UJV	1/10/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
867	UJV	6/3/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
868	UJV	11/7/1997		0.10 ug/l	0.00		Pharmacia & Upjohn Company	
869	UJV	1/15/1998			0.20	ug/l	Pharmacia & Upjohn Company	
870	UJV	2/17/1998			0.20	ug/l	Pharmacia & Upjohn Company	
871	UJV	2/18/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
872	UJV	2/19/1998			0.40	ug/l	Pharmacia & Upjohn Company	
873	UJV	3/16/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
874	UJV	3/17/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
875	UJV	3/18/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
876	UJV	8/4/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
877	UJV	2/9/1999	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
878	UJV	8/10/1999	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
879	UJV	2/23/2000	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
880	UJX	11/7/1991			1.20	ug/l	Pharmacia & Upjohn Company	
881	UJX	2/6/1992	10.00	ug/l	0.00		Pharmacia & Upjohn Company	
882	UJX	5/29/1992	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
883	UJX	4/28/1993	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
884	UJX	4/30/1993	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
885	UJX	5/27/1993			0.70	ug/l	Pharmacia & Upjohn Company	
886	UJX	11/30/1993	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
887	UJX	4/26/1994	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
888	UJX	11/29/1994	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
889	UJX	3/28/1995	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
890	UJX	7/25/1995	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
891	UJX	2/2/1996	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
892	UJX	7/16/1996	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
893	UJX	6/3/1997	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
894	UJX	10/2/1997	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
895	UJX	11/17/1997	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
896	UJX	1/19/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
897	UJX	7/14/1998	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
898	UJX	2/9/1999	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
899	UJX	8/4/1999	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
900	UJX	2/4/2000	0.10	ug/l	0.00		Pharmacia & Upjohn Company	
901	WC2	11/7/1991	0.10	ug/l	0.00		Wright Coating Incorporated	
902	WEL	1/15/1992	0.10	ug/l	0.00		Welsh Oil, Incorporated	
903	WEL	3/23/1992	0.10	ug/l	0.00		Welsh Oil, Incorporated	

List of PCB Results On The IPP
Paradox Database

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	3-Digit Code	Date	Detection Limit	Units	Results	Units	Industry Name	
904	WEL	6/9/1992	0.10	ug/l	0.00		Welsh Oil, Incorporated	
905	WEL	12/1/1992	0.19	ug/l	0.00		Welsh Oil, Incorporated	
906	WEL	6/1/1993	0.40	ug/l	0.00		Welsh Oil, Incorporated	
907	WEL	12/1/1993	0.40	ug/l	0.00		Welsh Oil, Incorporated	
908	WLI	11/13/1991	1.00	ug/l	0.00		Leiner Health Products	
909	WM5	11/12/1991	1.00	ug/l	0.00		Western Michigan University	
910	WM5	12/2/1992	1.00	ug/l	0.00		Western Michigan University	
911	WM8	11/13/1991	1.00	ug/l	0.00		Western Michigan University	
912	WM8	12/2/1992	1.00	ug/l	0.00		Western Michigan University	
913	WM9	11/13/1991	1.00	ug/l	0.00		Western Michigan University	
914	WM9	4/20/1994	1.00	ug/l	0.00		Western Michigan University	

Indid	Samdte	Hname	Detval	Detunits	Value	Hunit	Reasonforanalysis
AEP	4/29/1997	PCBs			0.10	ug/l	Semi-Annual Self Monitoring
AER	6/14/1995	PCBs			0.30	ug/l	Semi-Annual Self Monitoring
AER	4/19/1996	PCBs			0.30	ug/l	Semi-Annual Self Monitoring
AER	9/4/1998	PCBs	0.50	ug/l	0.70	ug/l	Semi-Annual Self Monitoring
APE	3/12/1999	PCBs			0.05	ug/l	Semi-Annual Self Monitoring
FB4	9/13/1991	PCBs			0.90	ug/l	
HMH	8/23/1992	PCBs			0.11	ug/l	
HMH	12/23/1992	PCBs			0.14	ug/l	
HMH	2/24/1993	PCBs			0.18	ug/l	
OHL	1/14/1993	PCBs			0.11	ug/l	
OHL	12/7/1994	PCBs			0.50	ug/l	
OHL	12/12/1994	PCBs			0.60	ug/l	
OHL	12/15/1994	PCBs			0.50	ug/l	
UJK	11/5/1991	PCBs			0.16	ug/l	
UJK	5/27/1993	PCBs			0.30	ug/l	
UVJ	11/7/1991	PCBs			0.21	ug/l	
UVJ	5/29/1992	PCBs			1.00	ug/l	
UVJ	5/27/1993	PCBs			2.30	ug/l	
UVJ	11/30/1993	PCBs			0.74	ug/l	
UVJ	4/26/1994	PCBs			0.43	ug/l	
UVJ	2/27/1996	PCBs			0.40	ug/l	Semi-Annual Self Monitoring
UVJ	1/15/1998	PCBs			0.20	ug/l	Semi-Annual Self Monitoring
UVJ	2/17/1998	PCBs			0.20	ug/l	Enforcement Monitoring
UVJ	2/19/1998	PCBs			0.40	ug/l	Enforcement Monitoring
UJX	11/7/1991	PCBs			1.20	ug/l	
UJX	5/27/1993	PCBs			0.70	ug/l	

Positive Results on Database for PCBs
 (Entered as PCBs)

Index	Indid	Industryname	Userstreetnum	Userstreet	Usercity	Userstate	Userzip	
1	AC1	Cytec Industries, Incorporated	2715	Miller Road	Kalamazoo	MI	49001	
2	AC2	Cytec Industries, Incorporated	2715	Miller Road	Kalamazoo	MI	49001	
3	AC2	Cytec Industries, Incorporated	2715	Miller Road	Kalamazoo	MI	49001	
4	AC3	Cytec Industries, Incorporated	2715	Miller Road	Kalamazoo	MI	49001	
5	AC3	Cytec Industries, Incorporated	2715	Miller Road	Kalamazoo	MI	49001	
6	ACP	Arvco Container Corporation	845	Gibson St.	Kalamazoo	MI	49001	
7	ACP	Arvco Container Corporation	845	Gibson St.	Kalamazoo	MI	49001	
8	ACR	Arvco Container Corporation	845	Gibson St.	Kalamazoo	MI	49001	
9	ACR	Arvco Container Corporation	845	Gibson St.	Kalamazoo	MI	49001	
10	ACU	Applied Coatings	1830	Reed Street	Kalamazoo	MI	49001	
11	ACU	Applied Coatings	1830	Reed Street	Kalamazoo	MI	49001	
12	ADJ	A. D. Johnson	2129	Portage Street	Kalamazoo	MI	49001	
13	AEP	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
14	AEP	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
15	AEP	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
16	AEP	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
17	AEP	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
18	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
19	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
20	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
21	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
22	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
23	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
24	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
25	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
26	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
27	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
28	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
29	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
30	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
31	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
32	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
33	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
34	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
35	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
36	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
37	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
38	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
39	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
40	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
41	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
42	AER	Aero-Motive Company	5688	ML Avenue East	Kalamazoo	MI	49003	
43	AFC	Aluminum Finishing Company	615	West Ransom Street	Kalamazoo	MI	49007	

Index	Indid	Industryname	Userstreetnum	Userstreet	Usercity	Userstate	Userzip	
44	AFC	Aluminum Finishing Company	615	West Ransom Street	Kalamazoo	MI	49007	
45	ALT	Altenderfer, Gail	1625	Bacon	Portage	MI	49002	
46	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
47	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
48	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
49	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
50	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
51	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
52	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
53	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
54	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
55	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
56	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
57	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
58	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
59	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
60	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
61	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
62	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
63	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
64	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
65	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
66	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
67	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
68	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
69	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
70	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
71	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
72	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
73	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
74	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
75	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
76	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
77	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
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80	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
81	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
82	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
83	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
84	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
85	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
86	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	

Index	Indid	Industryname	Userstreetnum	Userstreet	Usercity	Userstate	Userzip	
87	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
88	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
89	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
90	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
91	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
92	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
93	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
94	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
95	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
96	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
97	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
98	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
99	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
100	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
101	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
102	APE	EPA-Allied Paper	77	North Jackson Blvd., SE-5J	Chicago	IL	60604	
103	BEN	Benteler Automotive Corporation	9000	East Michigan Ave	Galesburg	MI	49053	
104	BEN	Benteler Automotive Corporation	9000	East Michigan Ave	Galesburg	MI	49053	
105	BL1	Borroughs Corporation	3002	North Burdick	Kalamazoo	MI	49007	
106	BL2	Borroughs Corporation	3002	North Burdick	Kalamazoo	MI	49007	
107	BL3	Borroughs Corporation	3002	North Burdick	Kalamazoo	MI	49007	
108	BLS	Borroughs Corporation	3002	North Burdick	Kalamazoo	MI	49007	
109	BLS	Borroughs Corporation	3002	North Burdick	Kalamazoo	MI	49007	
110	BMF	[REDACTED]	9000	East Michigan Ave	Galesburg	MI	49053	
111	BMF	Benteler Automotive Corporation	9000	East Michigan Ave	Galesburg	MI	49053	
112	BO4	Borgess Medical Center	1521	Gull Road	Kalamazoo	MI	49001	
113	BO7	Borgess Medical Center	1521	Gull Road	Kalamazoo	MI	49001	
114	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
115	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
116	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
117	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
118	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
119	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
120	BOC	Bowers Manufacturing - Comstock	6615	Sprinkle Road	Kalamazoo	MI	49001	
121	BPE	Contempo Colours, Inc.	3825	Emerald Drive	Kalamazoo	MI	49001	
122	BPE	Contempo Colours, Inc.	3825	Emerald Drive	Kalamazoo	MI	49001	
123	BPY	Contempo Colours, Inc.	3825	Emerald Drive	Kalamazoo	MI	49001	
124	BPY	Contempo Colours, Inc.	3825	Emerald Drive	Kalamazoo	MI	49001	
125	BRD	Bronson Methodist Hospital	[REDACTED]	John Street	Kalamazoo	MI	49007	
126	BRE	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007	
127	BRG	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007	
128	BRH	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007	
129	BRN	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007	

Index	Indid	Industryname	Userstreetnum	Userstreet	Usercity	Userstate	Userzip
130	BRO	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007
131	BRP	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007
132	BRQ	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007
133	BRT	Bronson Methodist Hospital	601	John Street	Kalamazoo	MI	49007
134	BWS	Bowers Manufacturing - Sprinkle Road	6565	Sprinkle Road	Portage	MI	49002
135	BWS	Bowers Manufacturing - Sprinkle Road	6565	Sprinkle Road	Portage	MI	49002
136	CFS	[REDACTED] Cash Limited	[REDACTED]	[REDACTED]	Grand Rapids	MI	49501
137	CLR	Clark Refining & Marketing, Inc.-CLR	[REDACTED]	[REDACTED]	Taylor	MI	48180
138	CLS	Continental Linen Services	4200	Manchester Road	Kalamazoo	MI	49001
139	CLS	Continental Linen Services	4200	Manchester Road	Kalamazoo	MI	49001
140	CMC	Checker Motors Corporation	2016	North Pitcher Street	Kalamazoo	MI	49007
141	CMC	Checker Motors Corporation	2016	North Pitcher Street	Kalamazoo	MI	49007
142	CUL	Culligan, Incorporated	3712	Miller Road	Kalamazoo	MI	49001
143	CV1	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
144	CV1	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
145	CV1	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
146	CV1	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
147	CV1	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
148	CV2	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
149	CV2	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
150	CV2	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
151	CVP	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
152	CVP	Crown Vantage Paper Company	100	Island Avenue	Parchment	MI	49004
153	DLS	Domestic Linen Supply Company, Inc.	30555	Northwestern Highway			
154	DMC	Durametallic					
155	DMC	Durametallic					
156	DMC	Durametallic					
157	DOT	Michigan Department of Transportation	1501	East Kilgore	Kalamazoo	MI	49001-6300
158	DPU	Diapers Unlimited/Custom Care Laundry	814	Nola	Kalamazoo	MI	49007
159	DPU	Diapers Unlimited/Custom Care Laundry	814	Nola	Kalamazoo	MI	49007
160	EKE	Swift-Eckrich, Incorporated	631	Second Street	Kalamazoo	MI	49007
161	EKW	Swift-Eckrich, Incorporated	631	Second Street	Kalamazoo	MI	49007
162	FB1	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
163	FB1	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
164	FB1	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
165	FB2	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
166	FB2	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
167	FB2	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
168	FB2	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
169	FB3	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
170	FB3	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
171	FB3	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001
172	FB3	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001

Index	Indid	Industryname	Userstreetnum	Userstreet	Usercity	Userstate	Userzip	
173	FB4	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001	
174	FB4	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001	
175	FB4	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001	
176	FB4	General Motors Corporation	5200	East Cork Street	Kalamazoo	MI	49001	
177	GBP	Green Bay Packaging	5350	East Kilgore	Kalamazoo	MI	49003-3007	
178	GEC	General Electric Company	320	Great Oaks Blvd Suite 323	Albany	NY	12203	
179	GEO	Georgia Pacific Corporation	2425	King Highway	Kalamazoo	MI	49001	
180	GEO	Georgia Pacific Corporation	2425	King Highway	Kalamazoo	MI	49001	
181	GEO	Georgia Pacific Corporation	2425	King Highway	Kalamazoo	MI	49001	
182	GEO	Georgia Pacific Corporation	2425	King Highway	Kalamazoo	MI	49001	
183	GSA	Gull Lake Sewer & Water Authority						
184	GPS	Galesburg/Augusta Public Schools	241	Blake Street	Galesburg	MI	49053	
185	GSC	General Signal Corporation	1	Highridge Park	Stamford	CT	06904	
186	HAV	Haviland Products Company	421	Ann Street NW	Grand Rapids	MI	49504-2075	
187	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
188	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
189	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
190	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
191	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
192	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
193	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
194	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
195	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
196	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
197	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
198	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
199	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
200	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
201	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
202	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
203	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
204	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
205	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
206	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
207	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
208	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
209	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
210	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
211	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
212	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
213	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
214	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	
215	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103	

Index	Indid	Industryname	Userstreetnum	Userstreet	Usercity	Userstate	Userzip
646	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
647	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
648	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
649	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
650	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
651	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
652	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
653	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
654	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
655	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
656	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
657	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
658	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
659	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
660	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
661	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
662	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
663	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
664	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
665	HMH	Millennium Holdings Inc.	One	Logan Square	Philadelphia	PA	19103
666	HPC	Harrison Packing Company	116	East Ransom St	Kalamazoo	MI	49007
667	HPC	Harrison Packing Company	116	East Ransom St	Kalamazoo	MI	49007
668	HUM	Humphrey Products	5070	East N Ave	Kalamazoo	MI	49003
669	HUM	Humphrey Products	5070	East N Ave	Kalamazoo	MI	49003
670	HXH	Hexacomb					
671	IMA	Imperial Adhesives	3334	North Pitcher St	Kalamazoo	MI	49007
672	INP	International Paper, Incorporated	2315	Miller Road	Kalamazoo	MI	49001
673	INQ	International Paper, Incorporated	2315	Miller Road	Kalamazoo	MI	49001
674	IOC	Imperial Oil Company	5115	Pickard St	Mt Pleasant	MI	48858
675	JR1	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
676	JR2	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
677	JR3	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
678	JRC	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
679	JRC	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
680	JRC	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
681	JRC	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
682	JRC	Graphic Packaging Corporation	1500	N. Pitcher Street	Kalamazoo	MI	49007
683	JRG	Georgia Pacific Corporation - GWRP 2015		% Environmental Management & R	Atlanta	GA	30303
684	JRG	Georgia Pacific Corporation - GWRP 2015		% Environmental Management & R	Atlanta	GA	30303
685	JRP	Fort James Epic Plant	400	Island Avenue	Parchment	MI	49004-1394
686	KBD	City Management Corporation	3400	E. Lafayette Street	Detroit	MI	48207
687	KBD	City Management Corporation	3400	E. Lafayette Street	Detroit	MI	48207
688	KBD	City Management Corporation	3400	E. Lafayette Street	Detroit	MI	48207

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689	KBS	Michigan State University			East Lansing	MI	48824
690	KBS	Michigan State University			East Lansing	MI	48824
691	KC1	Kalamazoo Creamery	706	Lake Street	Kalamazoo	MI	49001-3092
692	KC3	Kalamazoo Creamery	706	Lake Street	Kalamazoo	MI	49001-3092
693	KCC	Kalamazoo Valley Community College	6767	West "O" Avenue	Kalamazoo	MI	49009
694	KDP	Pacific Pride/Kal-Drake Inc.	2601	N. Burdick Street	Kalamazoo	MI	49007
695	KL1	Kalamazoo County Department of Buildings and	201	West Kalamazoo Ave	Kalamazoo	MI	49007
696	KL2	Kalamazoo County Department of Buildings and	201	West Kalamazoo Ave	Kalamazoo	MI	49007
697	KMF	Kalamazoo Metal Finishers	2019	Glendening	Kalamazoo	MI	49001
698	KSC	KALSEC, Incorporated	3713	West Main	Kalamazoo	MI	49005-0511
699	KTF	Kalamazoo Technical Furniture	6450	Valley Industrial Drive	Kalamazoo	MI	49009
700	KVG	Kalamazoo Valley Group Landfill	2042	S. 40th Street	Climax	MI	49034
701	KVG	Kalamazoo Valley Group Landfill	2042	S. 40th Street	Climax	MI	49034
702	LAK	Lakeside Refining	2705	East Cork Street	Kalamazoo	MI	49002
703	LAK	Lakeside Refining	2705	East Cork Street	Kalamazoo	MI	49002
704	LOW	Lowder's Automotive	2003	East Main Street	Kalamazoo	MI	49007
705	LOW	Lowder's Automotive	2003	East Main Street	Kalamazoo	MI	49007
706	LOW	Lowder's Automotive	2003	East Main Street	Kalamazoo	MI	49007
707	LRE	Covance Research Products, Inc.	6321	South 6th Street	Kalamazoo	MI	49009
708	LRE	Covance Research Products, Inc.	6321	South 6th Street	Kalamazoo	MI	49009
709	LWS	Ottawa Farms County Landfill	15550	68th Avenue	Coopersville	MI	49404
710	LWS	Ottawa Farms County Landfill	15550	68th Avenue	Coopersville	MI	49404
711	LWS	Ottawa Farms County Landfill	15550	68th Avenue	Coopersville	MI	49404
712	MCC	Mall City Container	2710	North Pitcher Street	Kalamazoo	MI	49007
713	MDS	City of Kalamazoo - Cork St. Landfill	415	Stockbridge	Kalamazoo	MI	49001
714	MDS	City of Kalamazoo - Cork St. Landfill	415	Stockbridge	Kalamazoo	MI	49001
715	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
716	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
717	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
718	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
719	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
720	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
721	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
722	MID	MDEQ-Midwest Aluminum	1342	SR-89 W., Suite B	Plainwell	MI	49080-1915
723	MLF	McLain Finishing	6387	Technology Avenue	Kalamazoo	MI	49009
724	MRD	Meredith Metering Station					
725	NUC	Quala Systems, Inc.	2532	Saidla Road	Kalamazoo	MI	49001
726	NUC	Quala Systems, Inc.	2532	Saidla Road	Kalamazoo	MI	49001
727	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098
728	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098
729	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098
730	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098
731	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098

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732	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
733	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
734	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
735	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
736	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
737	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
738	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
739	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
740	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
741	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
742	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
743	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
744	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
745	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
746	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
747	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
748	OHL	Orchard Hill Landfill	3378	Hennesy Road	Watervliet	MI	49098	
749	PAR	Parchment Metering Station						
750	PBP	City of Portage-PBP	7719	South Westnedge	Portage	MI	49002	
751	PMF	City of Portage - PMF	7719	South Westnedge	Portage	MI	49002	
752	PN1	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
753	PN1	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
754	PN1	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
755	PN4	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
756	PN4	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
757	PN4	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
758	PN4	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
759	PNA	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
760	PNA	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
761	PNC	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
762	PNC	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
763	PNC	Parker Abex NWL	2220	Palmer Avenue	Kalamazoo	MI	49001	
764	POP	Portage Paper Company, Inc.	401	E. Alcott	Kalamazoo	MI	49001	
765	POP	Portage Paper Company, Inc.	401	E. Alcott	Kalamazoo	MI	49001	
766	POR	Portage Creek Metering Station						
767	POR	Portage Creek Metering Station						
768	PPP	Production Plated Plastics - State of Michigan	914	West Baraga Avenue	Marquette	MI	49855	
769	PPP4	Production Plated Plastics - State of Michigan	914	West Baraga Avenue	Marquette	MI	49855	
770	RKC	Rick King / Federated Insurance Company	6632	Cypress Street	Portage	MI	49002	
771	RKC	Rick King / Federated Insurance Company	6632	Cypress Street	Portage	MI	49002	
772	RKC	Rick King / Federated Insurance Company	6632	Cypress Street	Portage	MI	49002	
773	RLF	Prairie Farms Dairy	95	East Michigan Ave	Galesburg	MI	49053	
774	SGO	Sun Company, Incorporated	500	South Dix Street	Detroit	MI	48217	

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775	SGP	Schug Farms	5015	West VW Avenue	Schoolcraft	MI	49087
776	SPA	Specialty Adhesives, Incorporated	3334	N. Pitcher	Kalamazoo	MI	49007
777	SPA	Specialty Adhesives, Incorporated	3334	N. Pitcher	Kalamazoo	MI	49007
778	SSI	Schupan & Sons, Incorporated	2619	Miller Rd	Kalamazoo	MI	49001
779	SSI	Schupan & Sons, Incorporated	2619	Miller Rd	Kalamazoo	MI	49001
780	SSS	Shell Oil Company	603	Diehl Road	Naperville	IL	60563
781	STB	Strebcor Corporation	2305	Superior Avenue	Kalamazoo	MI	49001
782	STM	Stryker Medical	6300	Sprinkle Road	Kalamazoo	MI	49001
783	STR	Star Truck Rental	3940	Eastern Avenue	Grand Rapids	MI	49508
784	TEX	Textile Systems	817	Walbridge	Kalamazoo	MI	49007
785	TOD	Aramark	4384	Commercial Avenue	Portage	MI	49001
786	TOD	Aramark	4384	Commercial Avenue	Portage	MI	49001
787	TOD	Aramark	4384	Commercial Avenue	Portage	MI	49001
788	TOD	Aramark	4384	Commercial Avenue	Portage	MI	49001
789	UCC	International Paper Company	4015	Emerald Drive	Kalamazoo	MI	49001
790	UCC	International Paper Company	4015	Emerald Drive	Kalamazoo	MI	49001
791	UJ5	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
792	UJA	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
793	UJB	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
794	UJB	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
795	UJB	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
796	UJB	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
797	UJB	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
798	UJC	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
799	UJD	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
800	UJD	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
801	UJD	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
802	UJD	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
803	UJF	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
804	UJF	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
805	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
806	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
807	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
808	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
809	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
810	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
811	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
812	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
813	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
814	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
815	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
816	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
817	UJK	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199

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861	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
862	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
863	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
864	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
865	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
866	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
867	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
868	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
869	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
870	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
871	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
872	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
873	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
874	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
875	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
876	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
877	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
878	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
879	UJV	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
880	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
881	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
882	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
883	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
884	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
885	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
886	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
887	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
888	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
889	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
890	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
891	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
892	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
893	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
894	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
895	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
896	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
897	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
898	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
899	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
900	UJX	Pharmacia & Upjohn Company	7000	Portage Road	Kalamazoo	MI	49001-0199
901	WC2	Wright Coating Incorporated	1603	North Pitcher Street	Kalamazoo	MI	49007
902	WEL	Welsh Oil, Incorporated	800	East 86th Avenue	Merrillville	IN	46411
903	WEL	Welsh Oil, Incorporated	800	East 86th Avenue	Merrillville	IN	46411

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904	WEL	Welsh Oil, Incorporated	800	East 86th Avenue	Merrillville	IN	46411	
905	WEL	Welsh Oil, Incorporated	800	East 86th Avenue	Merrillville	IN	46411	
906	WEL	Welsh Oil, Incorporated	800	East 86th Avenue	Merrillville	IN	46411	
907	WEL	Welsh Oil, Incorporated	800	East 86th Avenue	Merrillville	IN	46411	
908	WLI	Leiner Health Products	3308	Covington Road	Kalamazoo	MI	49001	
909	WM5	Western Michigan University	1201	Oliver Street	Kalamazoo	MI	49008-3804	
910	WM5	Western Michigan University	1201	Oliver Street	Kalamazoo	MI	49008-3804	
911	WM8	Western Michigan University	1201	Oliver Street	Kalamazoo	MI	49008-3804	
912	WM8	Western Michigan University	1201	Oliver Street	Kalamazoo	MI	49008-3804	
913	WM9	Western Michigan University	1201	Oliver Street	Kalamazoo	MI	49008-3804	
914	WM9	Western Michigan University	1201	Oliver Street	Kalamazoo	MI	49008-3804	

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1	AC1	Cytec Industries, Incorporated	Mr.	Ed	Elsner	(616) 385-1211
2	AC2	Cytec Industries, Incorporated	Mr.	Ed	Elsner	(616) 385-1211
3	AC2	Cytec Industries, Incorporated	Mr.	Ed	Elsner	(616) 385-1211
4	AC3	Cytec Industries, Incorporated	Mr.	Ed	Elsner	(616) 385-1211
5	AC3	Cytec Industries, Incorporated	Mr.	Ed	Elsner	(616) 385-1211
6	ACP	Arvco Container Corporation	Mr.	David W.	McDaniel	(616) 381-0900
7	ACP	Arvco Container Corporation	Mr.	David W.	McDaniel	(616) 381-0900
8	ACR	Arvco Container Corporation	Mr.	David W.	McDaniel	(616) 381-0900
9	ACR	Arvco Container Corporation	Mr.	David W.	McDaniel	(616) 381-0900
10	ACU	Applied Coatings	Mr.	Donald	Mohney	(616) 382-2803
11	ACU	Applied Coatings	Mr.	Donald	Mohney	(616) 382-2803
12	ADJ	A. D. Johnson	Mr.	Donavan	Kindle	(616) 385-0044
13	AEP	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
14	AEP	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
15	AEP	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
16	AEP	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
17	AEP	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
18	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
19	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
20	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
21	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
22	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
23	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
24	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
25	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
26	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
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34	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
35	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
36	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
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41	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
42	AER	Aero-Motive Company	Mr.	Paul	Fisher	(616) 337-7729
43	AFC	Aluminum Finishing Company	Mr.	Jahan	Assadi	(616) 382-4010

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45	ALT	Altenderfer, Gail	Ms.	Gail	Altenderfer	
46	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
47	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
48	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
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51	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
52	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
53	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
54	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
55	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
56	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
57	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
58	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
59	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
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65	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
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77	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
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83	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
84	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
85	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
86	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406

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91	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
92	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
93	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
94	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
95	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
96	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
97	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
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99	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
100	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
101	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
102	APE	EPA-Allied Paper	Mr.	Brad	Stimple	(312) 886-0406
103	BEN	Benteler Automotive Corporation	Mr.	Brad	Smith	(616) 665-4261
104	BEN	Benteler Automotive Corporation	Mr.	Brad	Smith	(616) 665-4261
105	BL1	Borroughs Corporation	Mr.	Gregory	Gill	(616) 388-4033
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107	BL3	Borroughs Corporation	Mr.	Gregory	Gill	(616) 388-4033
108	BLS	Borroughs Corporation	Mr.	Gregory	Gill	(616) 388-4033
109	BLS	Borroughs Corporation	Mr.	Gregory	Gill	(616) 388-4033
110	BMF	Benteler Automotive Corporation	Mr.	Brad	Smith	(616) 665-4261
111	BMF	Benteler Automotive Corporation	Mr.	Brad	Smith	(616) 665-4261
112	BO4	Borgess Medical Center	Mr.	Phil	Stearns	(616) 226-7296
113	BO7	Borgess Medical Center	Mr.	Phil	Stearns	(616) 226-7296
114	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
115	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
116	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
117	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
118	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
119	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
120	BOC	Bowers Manufacturing - Comstock	Mr.	Andrew	Reyburn	(616) 381-3456
121	BPE	Contempo Colours, Inc.	Mr.	Mark	Mizikar	(616) 349-2626
122	BPE	Contempo Colours, Inc.	Mr.	Mark	Mizikar	(616) 349-2626
123	BPY	Contempo Colours, Inc.	Mr.	Mark	Mizikar	(616) 349-2626
124	BPY	Contempo Colours, Inc.	Mr.	Mark	Mizikar	(616) 349-2626
125	BRD	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
126	BRE	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
127	BRG	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
128	BRH	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
129	BRN	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842

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130	BRO	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
131	BRP	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
132	BRQ	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
133	BRT	Bronson Methodist Hospital	Mr.	Paul	Dubbeld	(616) 341-8842
134	BWS	Bowers Manufacturing - Sprinkle Road	Mr.	Andrew	Reyburn	(616) 323-2565
135	BWS	Bowers Manufacturing - Sprinkle Road	Mr.	Andrew	Reyburn	(616) 323-2565
136	CFS	Crystal Flash Limited	Mr.	Richard	Pollie	(616) 365-3258
137	CLR	Clark Refining & Marketing, Inc.-CLR	Mr.	Eric	Larson	(313) 291-2300
138	CLS	Continental Linen Services	Mr.	James	Brush	(616) 343-2551
139	CLS	Continental Linen Services	Mr.	James	Brush	(616) 343-2551
140	CMC	Checker Motors Corporation	Mr.	Richard	Rumbaugh	(616) 343-2551
141	CMC	Checker Motors Corporation	Mr.	Richard	Rumbaugh	(616) 343-2551
142	CUL	Culligan, Incorporated	Mr.	Scott	Canney	(616) 343-2691
143	CV1	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
144	CV1	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
145	CV1	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
146	CV1	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
147	CV1	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
148	CV2	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
149	CV2	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
150	CV2	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
151	CVP	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
152	CVP	Crown Vantage Paper Company	Mr.	Tom	Crockett	(616) 384-6333
153	DLS	Domestic Linen Supply Company, Inc.	Mr.	David	Colton	(248) 737-2000
154	DMC	Durametallic				
155	DMC	Durametallic				
156	DMC	Durametallic				
157	DOT	Michigan Department of Transportation	Mr.	John	Cape	(616) 337-3900
158	DPU	Diapers Unlimited/Custom Care Laundry	Mr.	Randy	Johnson	(616) 344-3242
159	DPU	Diapers Unlimited/Custom Care Laundry	Mr.	Randy	Johnson	(616) 344-3242
160	EKE	Swift-Eckrich, Incorporated	Mr.	Michael	Korton	(616) 381-4114
161	EKW	Swift-Eckrich, Incorporated	Mr.	Michael	Korton	(616) 381-4114
162	FB1	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
163	FB1	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
164	FB1	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
165	FB2	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
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167	FB2	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
168	FB2	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
169	FB3	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
170	FB3	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
171	FB3	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
172	FB3	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201

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175	FB4	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
176	FB4	General Motors Corporation	Mr.	Rick D.	Adams	(616) 384-1201
177	GBP	Green Bay Packaging	Mr.	Scott	Nugteren	(616) 552-1000
178	GEC	General Electric Company	Mr.	Paul	Hare	(518) 862-2713
179	GEO	Georgia Pacific Corporation	Mr.	Michael D.	Tompkins	(616) 349-0302
180	GEO	Georgia Pacific Corporation	Mr.	Michael D.	Tompkins	(616) 349-0302
181	GEO	Georgia Pacific Corporation	Mr.	Michael D.	Tompkins	(616) 349-0302
182	GEO	Georgia Pacific Corporation	Mr.	Michael D.	Tompkins	(616) 349-0302
183	GLS	Gull Lake Sewer & Water Authority				
184	GPS	Galesburg/Augusta Public Schools	Mr.	Larry	Moening	(616) 665-7082
185	GSC	General Signal Corporation	Ms.	Linda	Zabik	(203) 329-4346
186	HAV	Haviland Products Company	Mr.	Paul	Nederveld	(800) 456-1134
187	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
188	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
189	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
190	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
191	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
192	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
193	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
194	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
195	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
196	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
197	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
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204	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
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206	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
207	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
208	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
209	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
210	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
211	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
212	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
213	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
214	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
215	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916

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648	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
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650	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
651	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
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653	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
654	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
655	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
656	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
657	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
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660	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
661	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
662	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
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665	HMH	Millennium Holdings Inc.	Ms.	Bonnie	Barnett	(215) 988-2916
666	HPC	Harrison Packing Company	Mr.	Rush	Harrison	(616) 381-3837
667	HPC	Harrison Packing Company	Mr.	Rush	Harrison	(616) 381-3837
668	HUM	Humphrey Products	Mr.	Patrick	Aldworth	(616) 381-5500
669	HUM	Humphrey Products	Mr.	Patrick	Aldworth	(616) 381-5500
670	HXH	Hexacomb				
671	IMA	Imperial Adhesives	Mr.	Ron	Boykin	(616) 344-2760
672	INP	International Paper, Incorporated	Ms.	Kate	Dutrow	(616) 226-4624
673	INQ	International Paper, Incorporated	Ms.	Kate	Dutrow	(616) 226-4624
674	IOC	Imperial Oil Company	Ms.	Cathy	MacDonald	(517) 773-9921
675	JR1	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
676	JR2	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
677	JR3	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
678	JRC	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
679	JRC	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
680	JRC	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
681	JRC	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
682	JRC	Graphic Packaging Corporation	Mr	Robert	Miller, III	(616) 383-5344
683	JRG	Georgia Pacific Corporation - GWRP 2015	Mr.	John	Harrod	(404) 652-6871
684	JRG	Georgia Pacific Corporation - GWRP 2015	Mr.	John	Harrod	(404) 652-6871
685	JRP	Fort James Epic Plant	Ms.	Barb	Reed	(616) 384-6516
686	KBD	City Management Corporation	Mr.	Michael R.	Beaudoin, P.E.	(313) 567-4700
687	KBD	City Management Corporation	Mr.	Michael R.	Beaudoin, P.E.	(313) 567-4700
688	KBD	City Management Corporation	Mr.	Michael R.	Beaudoin, P.E.	(313) 567-4700

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690	KBS	Michigan State University	Ms.	Katherine	Neils	(517) 355-3372
691	KC1	Kalamazoo Creamery	Mr.	Duane	Blessing	(616) 343-2558
692	KC3	Kalamazoo Creamery	Mr.	Duane	Blessing	(616) 343-2558
693	KCC	Kalamazoo Valley Community College	Mr.	Roy S.	Phillips	(616) 372-5000
694	KDP	Pacific Pride/Kal-Drake Inc.	Mr.	David	Sonnevil	(616) 381-3142
695	KL1	Kalamazoo County Department of Buildings and Gro	Mr.	Dan	Ward	(616) 383-8954
696	KL2	Kalamazoo County Department of Buildings and Gro	Mr.	Dan	Ward	(616) 383-8954
697	KMF	Kalamazoo Metal Finishers	Mr.	Richard	Milliman	(616) 382-1611
698	KSC	KALSEC, Incorporated	Mr.	Harry	Todd	(616) 349-9711
699	KTF	Kalamazoo Technical Furniture	Mr.	John	Sweezy	(616) 372-6000
700	KVG	Kalamazoo Valley Group Landfill	Mr.	Robert	Miller III	(616) 383-5344
701	KVG	Kalamazoo Valley Group Landfill	Mr.	Robert	Miller III	(616) 383-5344
702	LAK	Lakeside Refining	Mr.	Mike	Todd	(616) 343-1574
703	LAK	Lakeside Refining	Mr.	Mike	Todd	(616) 343-1574
704	LOW	Lowder's Automotive	Mr.	Les	Lowder	(616) 343-0988
705	LOW	Lowder's Automotive	Mr.	Les	Lowder	(616) 343-0988
706	LOW	Lowder's Automotive	Mr.	Les	Lowder	(616) 343-0988
707	LRE	Covance Research Products, Inc.	Mr.	Barry	Kline	(616) 375-0482
708	LRE	Covance Research Products, Inc.	Mr.	Barry	Kline	(616) 375-0482
709	LWS	Ottawa Farms County Landfill	Mr.	Rob	Carr	(616) 837-8195
710	LWS	Ottawa Farms County Landfill	Mr.	Rob	Carr	(616) 837-8195
711	LWS	Ottawa Farms County Landfill	Mr.	Rob	Carr	(616) 837-8195
712	MCC	Mall City Container	Mr.	Cal	Asma	(616) 381-2707
713	MDS	City of Kalamazoo - Cork St. Landfill	Mrs.	Carolyn	Rutland	(616) 337-8365
714	MDS	City of Kalamazoo - Cork St. Landfill	Mrs.	Carolyn	Rutland	(616) 337-8365
715	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
716	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
717	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
718	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
719	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
720	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
721	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
722	MID	MDEQ-Midwest Aluminum	Ms.	Carol	Weaver	(616) 692-2675
723	MLF	McLain Finishing	Mr.	Donald	McLain	(616) 544-2530
724	MRD	Meredith Metering Station	Mr.	John	Obuchowski	(616) 349-0400
725	NUC	Quala Systems, Inc.	Mr.	John	Obuchowski	(616) 349-0400
726	NUC	Quala Systems, Inc.	Mr.	Ralph O.	Balkema	(616) 463-5588
727	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
728	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
729	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
730	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
731	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588

Index	Indid	Industryname	Userprefix	Userfirst	Userlast	Userphone
732	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
733	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
734	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
735	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
736	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
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738	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
739	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
740	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
741	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
742	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
743	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
744	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
745	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
746	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
747	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
748	OHL	Orchard Hill Landfill	Mr.	Ralph O.	Balkema	(616) 463-5588
749	PAR	Parchment Metering Station				
750	PBP	City of Portage-PBP	Mr.	Robert	Kimmer	(616) 329-4448
751	PMF	City of Portage - PMF	Mr.	Brian	Bowling	(616) 329-4444
752	PN1	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
753	PN1	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
754	PN1	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
755	PN4	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
756	PN4	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
757	PN4	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
758	PN4	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
759	PNA	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
760	PNA	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
761	PNC	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
762	PNC	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
763	PNC	Parker Abex NWL	Mrs.	Deborah	Klerk	(616) 384-3519
764	POP	Portage Paper Company, Inc.	Mr.	Yves	Lafontaine	(616) 345-7131
765	POP	Portage Paper Company, Inc.	Mr.	Yves	Lafontaine	(616) 345-7131
766	POR	Portage Creek Metering Station				
767	POR	Portage Creek Metering Station				
768	PPP	Production Plated Plastics - State of Michigan	Mr.	Ivan	Martysz	(906) 228-2333
769	PPP4	Production Plated Plastics - State of Michigan	Mr.	Ivan	Martysz	(906) 228-2333
770	RKC	Rick King / Federated Insurance Company	Mr.	Rick	King	(616) 327-8659
771	RKC	Rick King / Federated Insurance Company	Mr.	Rick	King	(616) 327-8659
772	RKC	Rick King / Federated Insurance Company	Mr.	Rick	King	(616) 327-8659
773	RLF	Prairie Farms Dairy	Mr.	Terry	Wuthrich	(269) 665-4206
774	SGO	Sun Company, Incorporated	Mr.	Paul	Renberg, P.E.	(313) 843-0243

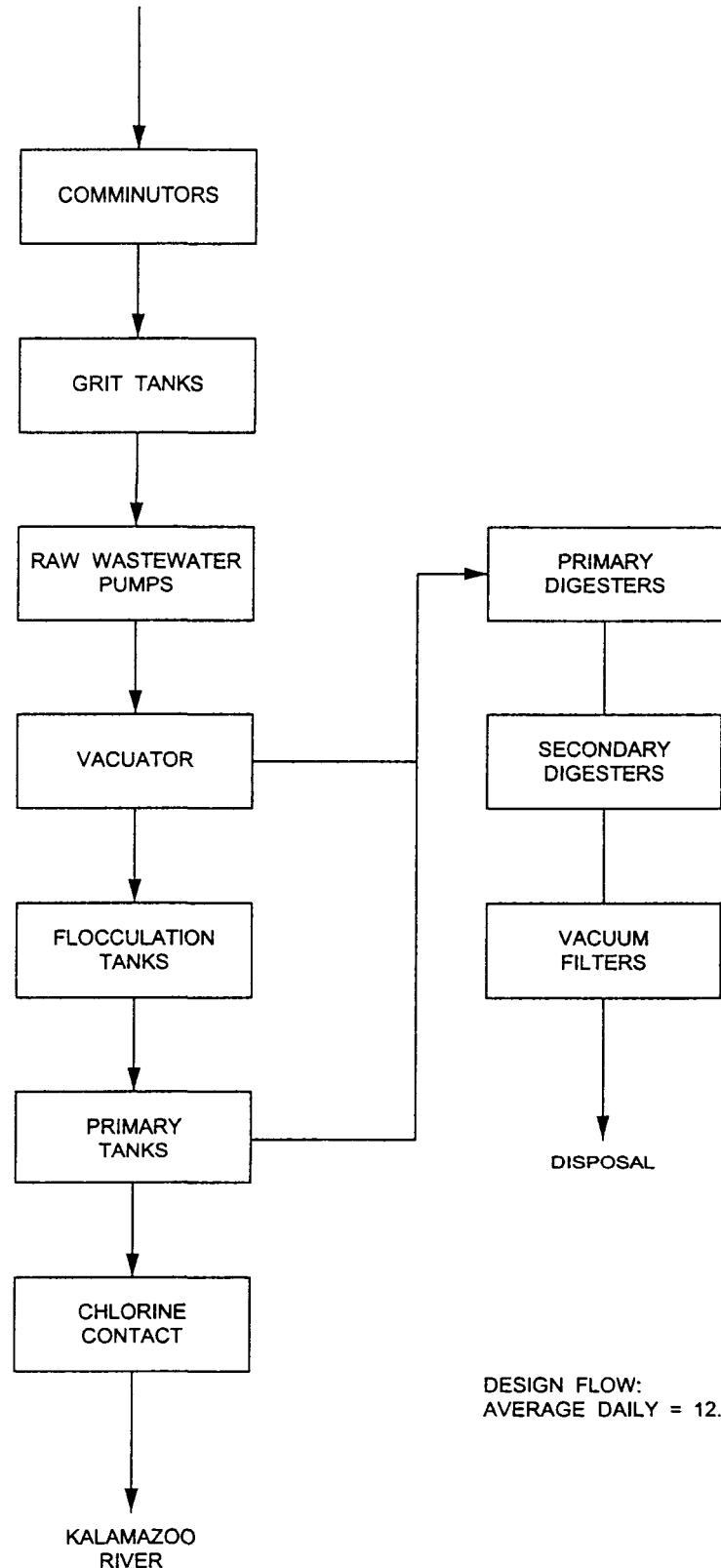
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775	SGP	Schug Farms	Mr.	Bernis	Schug	(616) 679-5680
776	SPA	Specialty Adhesives, Incorporated	Mr.	Bruce	Spielmaker	(616) 345-3801
777	SPA	Specialty Adhesives, Incorporated	Mr.	Bruce	Spielmaker	(616) 345-3801
778	SSI	Schupan & Sons, Incorporated	Mr.	Jay	Sherwood	(616) 382-0000
779	SSI	Schupan & Sons, Incorporated	Mr.	Jay	Sherwood	(616) 382-0000
780	SSS	Shell Oil Company	Mr.	R. Warren	Lucy	(630) 276-4211
781	STB	Strebor Corporation	Mr.	Maurice	McClish	(616) 381-1100
782	STM	Stryker Medical	Ms.	Darcy	Nelles	(616) 324-6702
783	STR	Star Truck Rental	Mr.	Tom	Bylenga	(616) 385-5933
784	TEX	Textile Systems	Mr.	Thomas	Bedeck	(616) 372-1158
785	TOD	Aramark	Mr.	Natale J.	Baldoni	(616) 329-0221
786	TOD	Aramark	Mr.	Natale J.	Baldoni	(616) 329-0221
787	TOD	Aramark	Mr.	Natale J.	Baldoni	(616) 329-0221
788	TOD	Aramark	Mr.	Natale J.	Baldoni	(616) 329-0221
789	UCC	International Paper Company	Ms.	Michele	Barney	(616) 382-7900
790	UCC	International Paper Company	Ms.	Michele	Barney	(616) 382-7900
791	UJ5	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
792	UJA	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
793	UJB	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
794	UJB	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
795	UJB	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
796	UJB	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
797	UJB	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
798	UJC	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
799	UJD	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
800	UJD	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
801	UJD	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
802	UJD	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
803	UJF	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
804	UJF	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
805	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
806	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
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811	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
812	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
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814	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
815	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
816	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
817	UJK	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132

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861	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
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863	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
864	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
865	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
866	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
867	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
868	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
869	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
870	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
871	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
872	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
873	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
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878	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
879	UVJ	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
880	UJX	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
881	UJX	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
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897	UJX	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
898	UJX	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
899	UJX	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
900	UJX	Pharmacia & Upjohn Company	Mr.	Richard F.	Gendernalik	(616) 833-7132
901	WC2	Wright Coating Incorporated	Mr.	Kevin	Doherty	(616) 344-8195
902	WEL	Welsh Oil, Incorporated	Mr.	Bill	Shaver	(219) 791-4300
903	WEL	Welsh Oil, Incorporated	Mr.	Bill	Shaver	(219) 791-4300

Index	Indid	Industryname	Userprefix	Userfirst	Userlast	Userphone
904	WEL	Welsh Oil, Incorporated	Mr.	Bill	Shaver	(219) 791-4300
905	WEL	Welsh Oil, Incorporated	Mr.	Bill	Shaver	(219) 791-4300
906	WEL	Welsh Oil, Incorporated	Mr.	Bill	Shaver	(219) 791-4300
907	WEL	Welsh Oil, Incorporated	Mr.	Bill	Shaver	(219) 791-4300
908	WLI	Leiner Health Products	Mr.	John R.	Rose	(616) 349-2616
909	WM5	Western Michigan University	Mr.	Thomas A.	Korinek	(616) 387-5590
910	WM5	Western Michigan University	Mr.	Thomas A.	Korinek	(616) 387-5590
911	WM8	Western Michigan University	Mr.	Thomas A.	Korinek	(616) 387-5590
912	WM8	Western Michigan University	Mr.	Thomas A.	Korinek	(616) 387-5590
913	WM9	Western Michigan University	Mr.	Thomas A.	Korinek	(616) 387-5590
914	WM9	Western Michigan University	Mr.	Thomas A.	Korinek	(616) 387-5590

ATTACHMENT

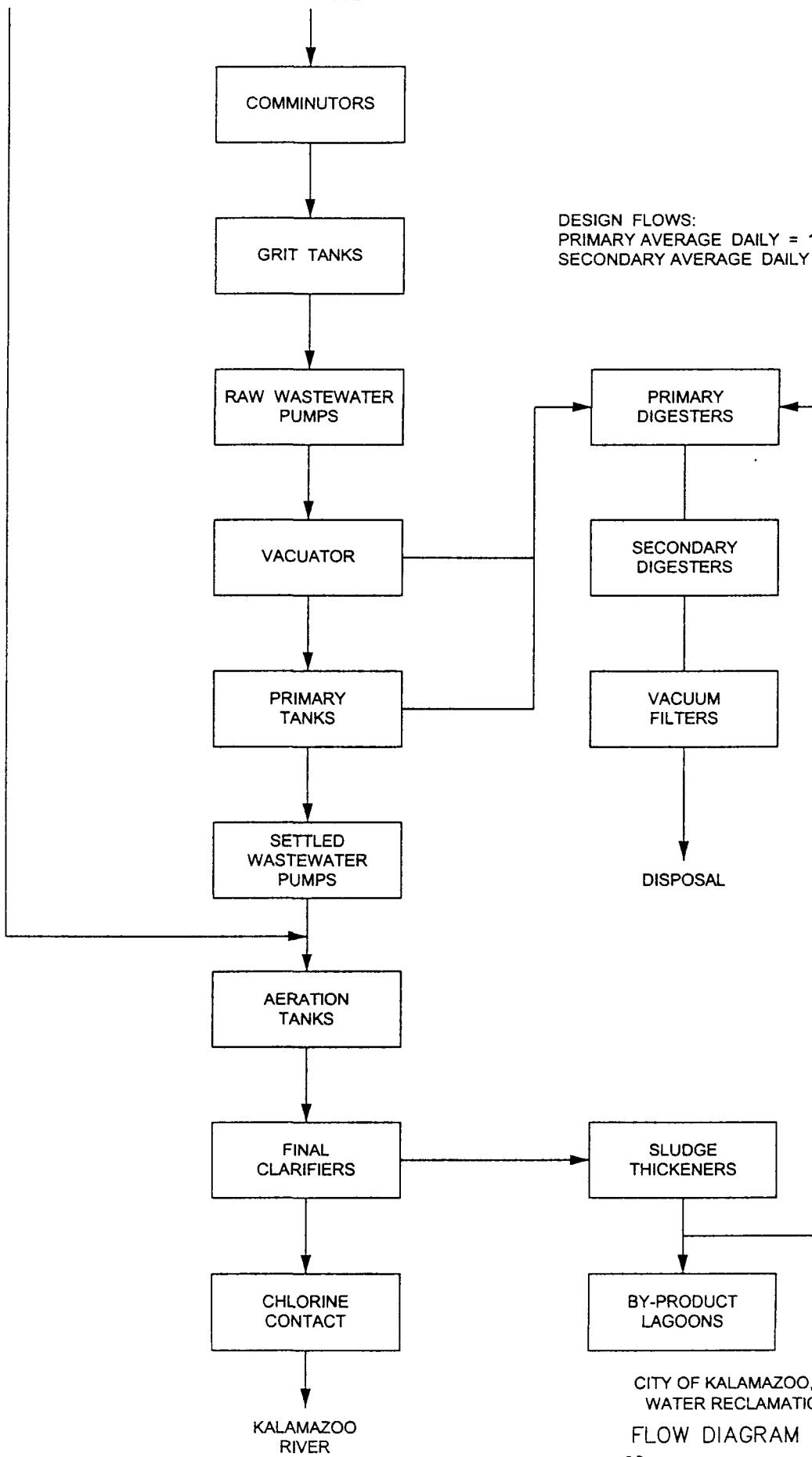
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DESIGN FLOW:
AVERAGE DAILY = 12.0 MGD

PAPER MILL WASTEWATER

MUNICIPAL WASTEWATER



DESIGN FLOWS:
PRIMARY AVERAGE DAILY = 12.0 MGD
SECONDARY AVERAGE DAILY = 34.0 MGD

CITY OF KALAMAZOO, MICHIGAN
WATER RECLAMATION PLANT

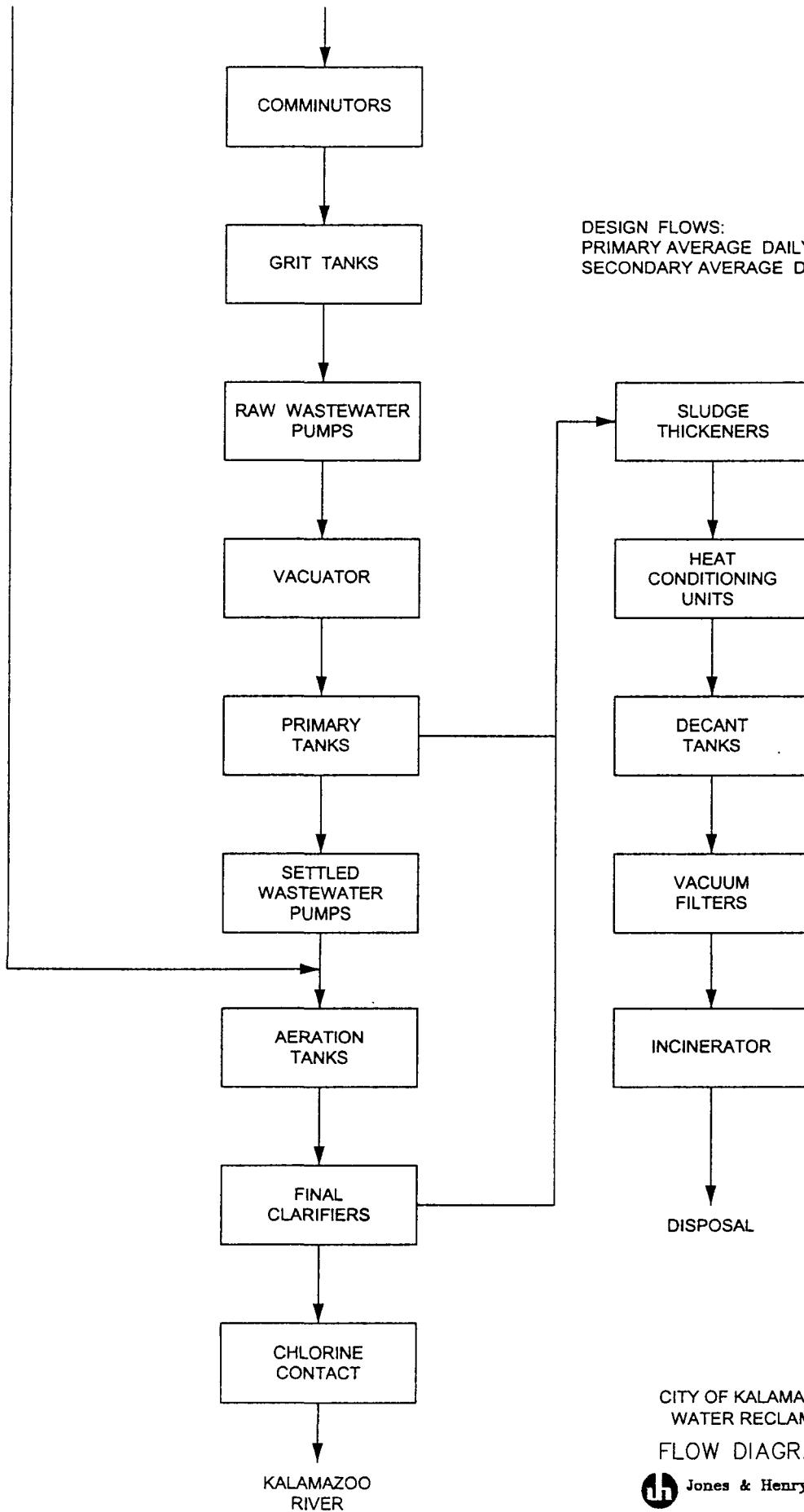
FLOW DIAGRAM — 1967



Jones & Henry Engineers, Ltd.

PAPER MILL WASTEWATER

MUNICIPAL WASTEWATER



DESIGN FLOWS:
PRIMARY AVERAGE DAILY = 12.0 MGD
SECONDARY AVERAGE DAILY = 34.0 MGD

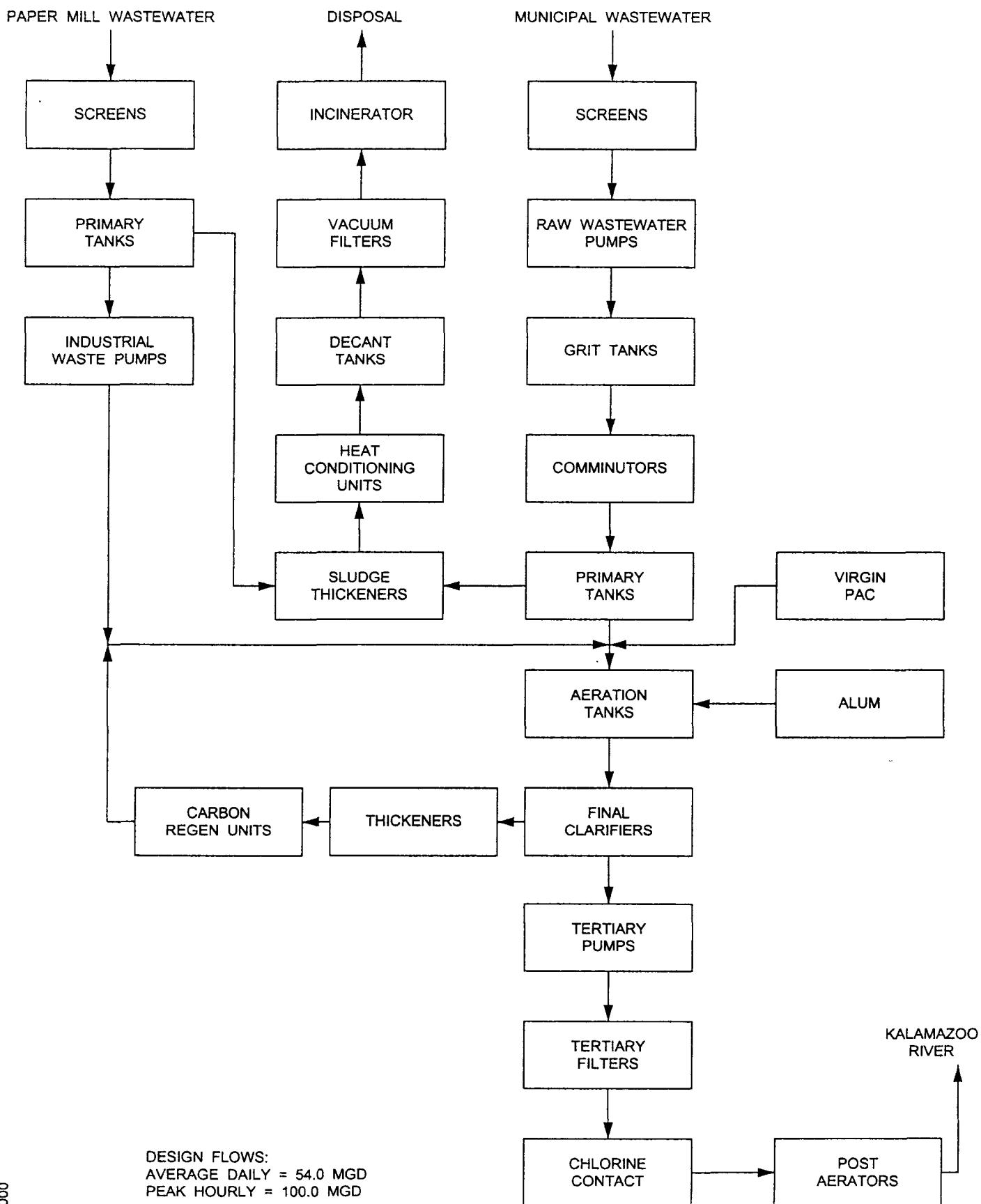
CITY OF KALAMAZOO, MICHIGAN

WATER RECLAMATION PLANT

FLOW DIAGRAM - 1971



Jones & Henry Engineers, Ltd.



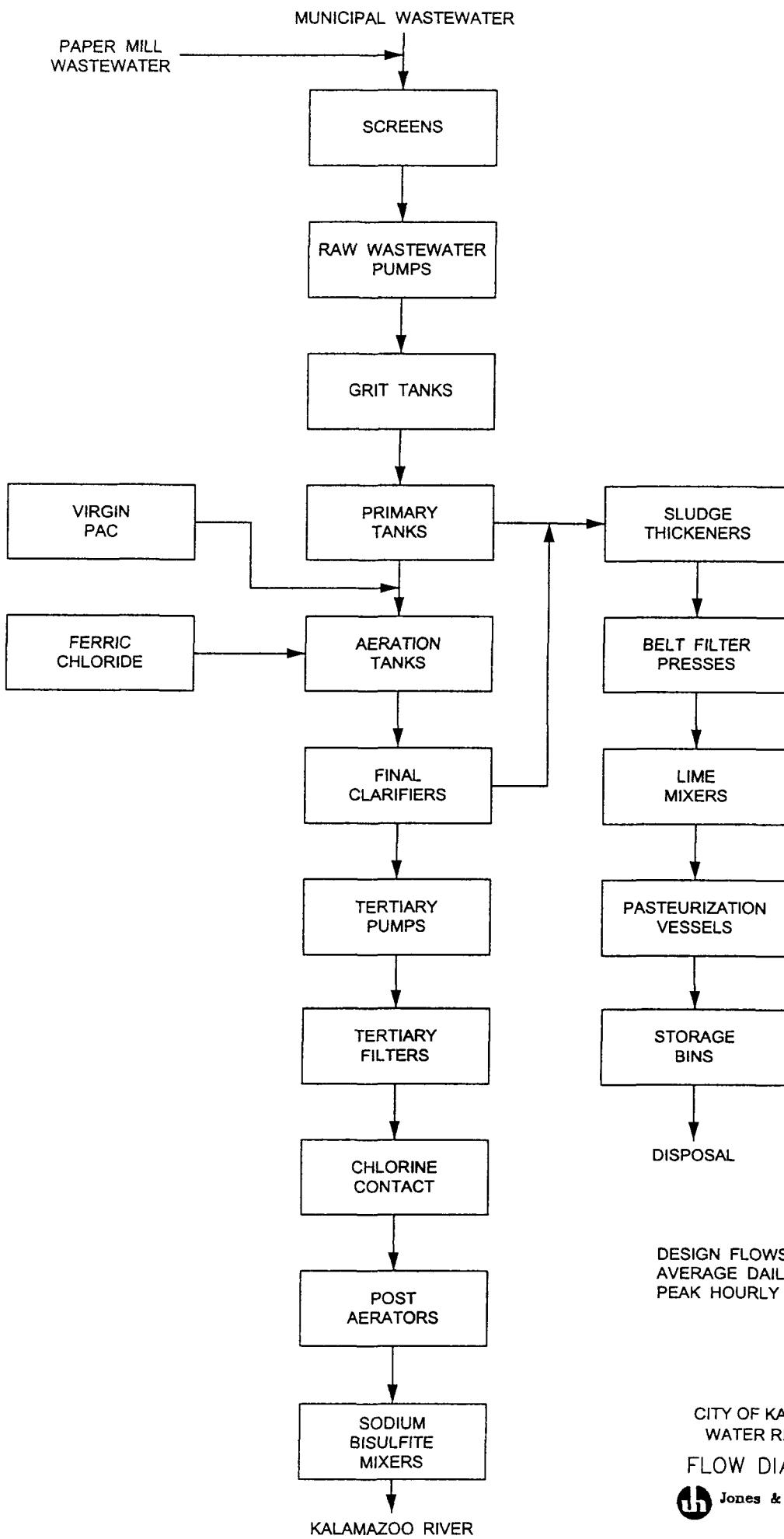
CITY OF KALAMAZOO, MICHIGAN

WATER RECLAMATION PLANT

FLOW DIAGRAM - 1985



Jones & Henry Engineers, Ltd.



ATTACHMENT

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Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow <i>mgd</i>	Mun Prim Flow <i>mgd</i>	Ind Prim Flow <i>mgd</i>	Sec Inf Flow as stated <i>mgd</i>	Mun Prim Influent TSS <i>mg/L</i>	Mun Prim Loading TSS <i>lbs/day</i>	Ind Prim Influent TSS <i>mg/L</i>	Ind Prim Loading TSS <i>lbs/day</i>	Plant Influent TSS <i>mg/L</i>	KWRP Loading TSS <i>lbs/day</i>
Jan-54										
Feb-54										
Mar-54										
Apr-54										
May-54										
Jun-54										
Jul-54										
Aug-54										
Sep-54										
Oct-54										
Nov-54										
Dec-54										
Jan-55										
Feb-55	7 2	7 2								
Mar-55	7 2	7 2								
Apr-55	7 1	7 1								
May-55	6 7	6 7			213	11,921			213	11,921
Jun-55	6 8	6 8			210	11,725			210	11,725
Jul-55	7 1	7 1			170	10,026			170	10,026
Aug-55	7 2	7 2			179	10,862			179	10,862
Sep-55	7 3	7 3			335	20,562			335	20,562
Oct-55	7 7	7 7			381	24,547			381	24,547
Nov-55	7 0	7 0			204	12,017			204	12,017
Dec-55	6 5	6 5			306	16,510			306	16,510
Jan-56	6 8	6 8			310	17,692			310	17,692
Feb-56	7 6	7 6			260	16,614			260	16,614
Mar-56	9 5	9 5			188	14,963			188	14,963
Apr-56	8 2	8 2			249	14,240			249	14,240
May-56	9 7	9 7			198	16,067			198	16,067
Jun-56	8 2	8 2			200	13,686			200	13,686
Jul-56	6 9	6 9			221	12,765			221	12,765
Aug-56	7 1	7 1			245	14,442			245	14,442
Sep-56	5 9	5 9			283	14,028			283	14,028
Oct-56	6 3	6 3			263	13,796			263	13,796
Nov-56	6 2	6 2			222	11,493			222	11,493

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Dec-56	6 4	6 4			231	12,432			231	12,432
Jan-57	6 4	6 4			214	11,434			214	11,434
Feb-57	6 5	6 5			212	11,527			212	11,527
Mar-57	6 5	6 5			229	12,462			229	12,462
Apr-57	8 2	8 2			202	13,764			202	13,764
May-57	8 1	8 1			228	15,370			228	15,370
Jun-57	7 1	7 1			230	13,705			230	13,705
Jul-57	7 6	7 6			209	13,319			209	13,319
Aug-57	7 1	7 1			191	11,318			191	11,318
Sep-57	6 8	6 8			218	12,379			218	12,379
Oct-57	7 2	7 2			232	13,836			232	13,836
Nov-57	8 1	8 1			186	12,481			186	12,481
Dec-57	6 9	6 9			209	12,108			209	12,108
Jan-58	7 7	7 7			221	14,142			221	14,142
Feb-58	7 4	7 4			210	13,035			210	13,035
Mar-58	8 2	8 2			211	14,420			211	14,420
Apr-58	7 7	7 7			219	14,176			219	14,176
May-58	6 9	6 9			246	14,094			246	14,094
Jun-58	6 1	6 1			224	11,418			224	11,418
Jul-58	6 0	6 0			219	11,015			219	11,015
Aug-58	6 1	6 1			241	12,214			241	12,214
Sep-58	6 1	6 1			231	11,666			231	11,666
Oct-58	6 2	6 2			281	14,422			281	14,422
Nov-58	5 7	5 7			248	11,742			248	11,742
Dec-58	6 1	6 1			338	17,065			338	17,065
Jan-59	6 1	6 1			256	12,945			256	12,945
Feb-59	6 6	6 6			246	13,493			246	13,493
Mar-59	7 7	7 7			241	15,397			241	15,397
Apr-59	7 7	7 7			198	12,641			198	12,641
May-59	7 3	7 3			192	11,757			192	11,757
Jun-59	6 7	6 7			212	11,910			212	11,910
Jul-59	6 1	6 1			231	11,289			231	11,289
Aug-59	6 0	6 0			214	10,733			214	10,733
Sep-59	5 8	5 8			206	10,009			206	10,009
Oct-59	6 3	6 3			214	11,311			214	11,311

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Nov-59	5.7	5.7			200	9,478			200	9,478
Dec-59	7.1	7.1			216	12,640			216	12,640
Jan-60	7.9	7.9			199	12,946			199	12,946
Feb-60	7.5	7.5			193	12,715			193	12,715
Mar-60	8.5	8.5			212	13,208			212	13,208
Apr-60	7.5	7.5			187	13,198			187	13,198
May-60	7.5	7.5			196	12,351			196	12,351
Jun-60	8.0	8.0			209	13,930			209	13,930
Jul-60	6.9	6.9			204	11,815			204	11,815
Aug-60	6.8	6.8			208	11,776			208	11,776
Sep-60	6.4	6.4			208	11,097			208	11,097
Oct-60	6.0	6.0			231	11,569			231	11,569
Nov-60	6.2	6.2			212	11,088			212	11,088
Dec-60	6.3	6.3			208	10,876			208	10,876
Jan-61	6.6	6.6			229	12,606			229	12,606
Feb-61	6.8	6.8			307	17,435			307	17,435
Mar-61	7.6	7.6			207	13,037			207	13,037
Apr-61	7.8	7.8			204	13,175			204	13,175
May-61	7.8	7.8			200	13,011			200	13,011
Jun-61	7.3	7.3			212	12,995			212	12,995
Jul-61	6.8	6.8			202	11,447			202	11,447
Aug-61	7.0	7.0			197	11,498			197	11,498
Sep-61	7.7	7.7			194	12,515			194	12,515
Oct-61	7.4	7.4			208	12,796			208	12,796
Nov-61	7.2	7.2			207	12,427			207	12,427
Dec-61	6.8	6.8			194	11,108			194	11,108
Jan-62	6.9	6.9			205	11,804			205	11,822
Feb-62	6.9	6.9			216	12,525			216	12,525
Mar-62	8.2	8.2			197	13,582			197	13,582
Apr-62	7.9	7.9			192	12,681			192	12,681
May-62	8.2	8.2			200	13,694			200	13,694
Jun-62	7.5	7.5			196	12,234			196	12,234
Jul-62	7.0	7.0			178	10,406			178	10,406
Aug-62	6.9	6.9			176	10,079			176	10,079
Sep-62	6.5	6.5			202	11,023			202	11,023

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Oct-62	7.4	7.4			206	12,640			206	12,640
Nov-62	6.8	6.8			217	12,267			217	12,267
Dec-62	6.8	6.8			225	12,742			225	12,742
Jan-63	7.1	7.1			241	14,190			241	14,190
Feb-63	7.1	7.1			225	13,332			225	13,332
Mar-63	8.4	8.4			211	14,695			211	14,695
Apr-63	7.9	7.9			200	13,126			200	13,126
May-63	8.1	8.1			198	13,363			198	13,363
Jun-63	7.4	7.4			200	12,332			200	12,330
Jul-63	7.1	7.1			203	12,078			203	12,104
Aug-63	6.7	6.7			201	11,169			201	11,169
Sep-63	7.2	7.2			217	13,035			217	13,035
Oct-63	7.6	7.6			242	15,241			242	15,241
Nov-63	6.9	6.9			220	12,756			220	12,756
Dec-63	6.5	6.5			224	12,149			224	12,149
Jan-64	7.2	7.2			223	13,485			223	13,485
Feb-64	7.4	7.4			227	14,020			227	14,020
Mar-64	7.5	7.5			228	14,298			228	14,298
Apr-64	8.2	8.2			225	15,423			225	15,423
May-64	8.1	8.1			226	15,168			226	15,168
Jun-64	7.3	7.3			226	13,818			226	13,818
Jul-64	7.2	7.2			214	12,901			214	12,901
Aug-64	6.9	6.9			215	12,449			215	12,449
Sep-64	7.6	7.6			225	14,234			225	14,234
Oct-64	7.3	7.3			235	14,333			235	14,333
Nov-64	7.1	7.1			241	14,250			241	14,250
Dec-64	7.1	7.1			229	13,610			229	13,610
Jan-65	7.8	7.8			232	15,113			232	15,113
Feb-65	8.5	8.5			241	17,116			241	17,116
Mar-65	9.0	9.0			231	17,426			231	17,426
Apr-65	9.1	9.1			217	16,390			217	16,390
May-65	8.8	8.8			220	16,060			220	16,095
Jun-65	9.0	9.0			220	16,596			220	16,565
Jul-65	7.9	7.9			210	13,775			210	13,771
Aug-65	7.5	7.5			224	13,981			224	13,985

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Sep-65	8 1	8 1			259	17,561			259	17,597
Oct-65	8 0	8 0			296	19,777			296	19,777
Nov-65	7 9	7 9			240	16,089			240	16,089
Dec-65	8 3	8 3			231	15,982			231	15,982
Jan-66	8 6	8 6			227	16,252			227	16,252
Feb-66	8 9	8 9			260	19,194			260	19,194
Mar-66	10 7	10 7			295	26,245			295	26,245
Apr-66	9 5	9 5			286	22,657			286	22,657
May-66	10 1	10 1			239	20,160			239	20,160
Jun-66	9 3	9 3			491	37,950			491	37,950
Jul-66	8 4	8 4			357	25,048			357	25,048
Aug-66	8 3	8 3			356	24,620			356	24,620
Sep-66	8 0	8 0			402	26,783			402	26,783
Oct-66	7 9	7 9			391	25,679			391	25,679
Nov-66	8 7	8 7			303	22,030			303	22,030
Dec-66	8 8	8 8			257	19,424			257	19,424
Jan-67	8 3	8 3			295	20,310			295	20,310
Feb-67	9 3	9 3			290	22,597			290	22,597
Mar-67	11 1	11 1			270	24,976			270	25,011
Apr-67	12 4	12 4			262	27,144			262	27,097
May-67	10 6	10 6			242	21,398			242	21,349
Jun-67	28 0	11 0	17 0		243	22,295	541	76,706	424	99,001
Jul-67	24 3	9 8	14 5		191	15,635	376	45,602	302	61,237
Aug-67	24 5	9 7	14 8		263	21,251	378	46,726	333	67,977
Sep-67	24 1	10 2	13 9		221	18,762	515	59,710	391	78,472
Oct-67	26 5	10 6	16 0		255	22,471	452	60,256	374	82,727
Nov-67	25 8	11 4	14 4		245	23,261	509	61,135	392	84,396
Dec-67	24 5	11 3	13 2		255	23,985	403	44,369	335	68,354
Jan-68	26 1	11 1	15 0		262	24,247	273	34,201	268	58,448
Feb-68	27 5	13 1	14 4		220	24,090	324	38,915	275	63,005
Mar-68	25 9	11 3	14 7		249	23,177	183	22,431	211	45,608
Apr-68	25 6	11 4	14 2		252	23,899	319	37,766	289	61,665
May-68	25 1	10 5	14 6		261	22,883	536	65,020	421	87,903
Jun-68	25 3	11 1	14 3		330	30,478	1,148	136,657	791	167,135
Jul-68	25 4	12 8	12 6		309	32,977	533	56,221	421	89,198

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Aug-68	25.7	11.8	14.0		365	35,775	691	80,572	542	116,347
Sep-68	23.1	11.9	11.2		353	34,971	724	67,642	533	102,613
Oct-68	25.0	12.1	12.8		297	30,058	659	70,510	483	100,568
Nov-68	23.3	12.0	11.3		260	26,099	722	67,796	483	93,895
Dec-68	22.0	11.9	10.1		310	30,752	689	57,994	484	88,746
Jan-69	24.6	13.6	11.0		284	32,185	327	30,020	303	62,205
Feb-69	29.6	13.9	15.7		254	29,459	325	42,397	292	71,856
Mar-69	30.7	12.1	18.5		332	34,623	796	123,049	617	157,672
Apr-69	32.5	13.4	19.2		662	73,829	979	156,596	849	230,425
May-69	31.7	12.3	19.4		386	39,570	346	55,870	361	95,440
Jun-69	30.9	12.3	18.6		354	36,286	271	41,966	304	78,252
Jul-69	28.8	13.1	15.7		364	39,794	303	39,781	331	79,575
Aug-69	28.4	12.8	15.7		507	54,068	442	57,759	471	111,827
Sep-69	28.6	12.0	16.6		746	74,854	327	45,104	503	119,958
Oct-69	30.3	12.8	17.5		552	59,034	457	66,739	498	125,773
Nov-69	27.9	12.7	15.2		433	52,790	643	81,597	578	134,387
Dec-69	26.3	11.4	14.9		531	56,097	844	104,928	733	161,025
Jan-70	27.6	12.1	15.5		651	72,668	639	82,806	675	155,474
Feb-70	27.9	13.1	14.8		335	36,526	485	59,922	415	96,448
Mar-70	25.3	13.2	12.2		312	34,228	337	34,137	324	68,365
Apr-70	27.5	14.1	13.4		226	26,534	336	37,632	279	64,166
May-70	21.0	14.1	7.0		201	24,375	499	28,937	304	53,312
Jun-70	24.7	13.6	11.2		260	29,894	422	39,289	335	69,183
Jul-70	23.8	13.6	10.2		278	31,531	361	30,808	314	62,339
Aug-70	24.0	13.4	10.6		206	23,016	236	20,914	219	43,930
Sep-70	22.8	12.9	9.9		403	43,471	307	25,291	361	68,762
Oct-70	24.4	12.8	11.7		431	47,449	538	52,320	489	99,769
Nov-70	23.3	13.0	10.3		383	41,445	372	31,860	378	73,305
Dec-70	21.4	12.4	9.0		342	36,492	592	44,585	454	81,077
Jan-71	19.9	12.8	7.1		417	69,243	260	15,376	510	84,619
Feb-71	22.3	15.3	7.0		400	74,426	466	27,141	546	101,567
Mar-71	24.3	16.0	8.3		467	62,341	1,559	107,513	839	169,854
Apr-71	21.2	14.0	7.2		400	46,789	715	42,802	506	89,591
May-71	20.4	12.7	7.7		382	40,483	747	47,994	520	88,477
Jun-71	21.9	14.3	7.6		496	59,102	365	23,190	450	82,292

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim	Ind Prim	Sec Inf	Mun Prim Influent TSS	Mun Prim	Ind Prim	Ind Prim	Plant	KWRP
		Flow	Flow	Flow as stated		Loading TSS	Influent TSS	Loading TSS	Influent TSS	Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Jul-71	20.6	13.5	7.0		381	43,036	594	34,861	454	77,897
Aug-71	21.6	13.5	8.1		694	78,348	565	38,175	646	116,523
Sep-71	20.7	13.9	6.7		556	64,659	634	35,420	581	100,079
Oct-71	21.7	13.7	8.1		450	51,275	736	49,509	556	100,784
Nov-71	20.9	13.6	7.4		516	58,330	704	43,185	582	101,515
Dec-71	19.9	13.7	6.2		439	51,865	581	30,005	493	81,870
Jan-72	19.4	14.1	5.2		401	47,261	795	34,609	507	81,870
Feb-72	21.5	14.3	7.2		465	55,326	440	26,544	457	81,870
Mar-72	24.3	16.5	7.8		375	53,361	438	28,509	404	81,870
Apr-72	23.5	16.2	7.3		200	26,969	454	27,817	279	54,786
May-72	24.2	16.1	8.1		213	28,906	253	16,972	227	45,878
Jun-72	23.7	15.7	8.1		295	38,499	1,660	111,579	758	150,078
Jul-72	22.5	14.8	7.7		292	35,920	976	62,973	527	98,893
Aug-72	30.0	16.1	13.9		315	42,276	440	51,009	373	93,285
Sep-72	30.8	16.6	14.2		275	38,005	403	47,777	334	85,782
Oct-72	29.7	16.7	13.0		335	46,684	366	39,662	348	86,346
Nov-72	29.3	17.2	12.0		275	39,507	398	39,918	326	79,425
Dec-72	28.7	16.6	12.1		235	32,681	304	30,669	265	63,350
Jan-73	31.5	18.5	12.9		228	35,239	201	21,654	217	56,893
Feb-73	30.0	17.5	12.4		261	38,126	319	33,068	285	71,194
Mar-73	32.4	19.7	12.8		216	35,386	209	22,241	213	57,627
Apr-73	32.0	19.9	12.1		282	46,695	355	35,774	309	82,469
May-73	33.4	19.4	14.0		222	35,949	259	30,173	237	66,122
Jun-73	35.1	19.7	15.4		214	35,197	306	39,203	254	74,400
Jul-73	33.1	17.9	15.3		198	29,554	282	35,817	237	65,371
Aug-73	32.5	18.2	14.3		240	36,331	458	54,670	336	91,001
Sep-73	31.6	17.4	14.2		250	36,420	410	48,537	322	84,957
Oct-73	32.2	18.3	13.9		199	30,430	428	49,437	298	79,867
Nov-73	30.3	17.2	13.1		206	28,522	303	33,243	244	61,765
Dec-73	29.4	17.3	12.1		194	28,028	255	25,752	219	53,780
Jan-74	32.0	19.5	12.5		216	35,207	215	22,409	216	57,616
Feb-74	32.4	19.6	12.8		181	48,834	46	4,946	199	53,780
Mar-74	35.9	21.7	14.2		184	33,365	389	46,039	265	79,404
Apr-74	35.2	21.0	14.2		209	36,579	445	52,717	305	89,296
May-74	34.3	20.6	13.7		208	35,636	667	76,339	392	111,975

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Jun-74	33.6	18.9	14.6		195	30,772	448	54,752	306	85,524
Jul-74	30.2	16.3	14.0		256	34,773	365	42,444	306	77,217
Aug-74	30.6	16.4	14.3		261	35,623	429	50,962	339	86,585
Sep-74	28.6	16.2	12.4		261	36,916	442	45,736	347	82,652
Oct-74	32.0	18.2	13.7		207	31,513	352	40,328	270	71,841
Nov-74	32.4	19.8	12.7		167	27,528	386	40,764	253	68,292
Dec-74	28.2	18.3	9.8		185	28,202	485	39,844	290	68,046
Jan-75	31.1	19.6	11.5		313	51,092	459	44,184	367	95,276
Feb-75	28.9	18.7	10.1		214	33,361	591	49,982	346	83,343
Mar-75	27.9	18.4	9.5		230	35,266	340	26,949	267	62,215
Apr-75	34.5	22.4	12.1		297	55,619	410	41,293	337	96,912
May-75	32.4	20.3	12.1		245	41,465	147	14,859	208	56,324
Jun-75	31.1	18.3	12.8		326	49,741	220	23,470	282	73,211
Jul-75	30.7	16.6	14.2		267	36,867	205	24,156	238	61,023
Aug-75	34.4	19.3	15.1		246	39,580	296	37,230	268	76,810
Sep-75	35.0	19.6	15.4		197	32,202	376	48,103	275	80,305
Oct-75	30.4	17.1	13.3		261	37,311	620	68,667	418	105,978
Nov-75	33.6	21.6	12.0		239	43,029	548	54,781	349	97,810
Dec-75	34.9	23.0	11.8		293	56,331	603	59,544	399	115,875
Jan-76	33.0	21.3	11.7		256	45,424	654	63,799	397	109,223
Feb-76	34.4	22.8	11.5		279	53,200	607	58,384	389	111,584
Mar-76	38.4	25.1	13.2		263	55,266	391	43,204	308	98,470
Apr-76	35.1	22.7	12.4		282	53,452	288	29,621	284	83,073
May-76	33.9	21.7	12.2		182	32,868	184	18,705	183	51,573
Jun-76	31.4	19.0	12.3		163	25,922	245	25,174	195	51,096
Jul-76	33.1	19.8	13.2		170	28,081	427	47,006	272	75,087
Aug-76	33.2	18.3	14.9		269	41,037	333	41,210	297	82,247
Sep-76	31.8	17.1	14.6		281	40,116	242	29,550	263	69,666
Oct-76	31.9	17.6	14.3		244	35,871	507	60,372	362	96,243
Nov-76	31.7	19.3	12.4		259	41,664	597	61,726	391	103,390
Dec-76	31.4	17.7	13.7		325	47,912	478	54,771	392	102,683
Jan-77	31.3	17.0	14.4		273	38,635	517	61,828	384	100,463
Feb-77	34.1	18.8	15.3		253	39,764	280	35,613	265	75,377
Mar-77	35.5	19.9	15.6		291	48,328	349	45,465	316	93,793
Apr-77	33.9	20.3	13.6		252	42,787	423	48,130	322	90,917

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
May-77	34.7	19.9	14.8		333	55,099	376	46,539	351	101,638
Jun-77	35.1	19.8	15.4		375	61,780	451	57,800	408	119,580
Jul-77	33.2	19.5	13.7		269	43,664	327	37,334	293	80,998
Aug-77	33.7	20.4	13.3		328	55,842	257	28,402	300	84,244
Sep-77	34.2	20.3	13.8		263	44,567	481	55,521	351	100,088
Oct-77	32.7	19.5	13.2		408	66,275	163	17,998	309	84,273
Nov-77	30.9	19.1	11.8		289	45,985	336	33,038	307	79,023
Dec-77	29.6	19.2	10.4		256	40,989	528	45,658	351	86,647
Jan-78	26.9	17.7	9.3		282	41,621	231	17,806	264	59,427
Feb-78	30.3	17.2	13.0		276	39,671	258	28,030	268	67,701
Mar-78	30.3	20.0	10.3		274	47,139	308	26,340	291	73,479
Apr-78	32.1	21.4	10.8		336	39,948	224	12,860	197	52,808
May-78	31.0	19.0	11.9		246	40,071	236	23,529	246	63,600
Jun-78	33.2	21.4	11.9		202	35,822	192	18,933	198	54,755
Jul-78	35.5	23.5	12.1		241	48,417	274	27,608	256	76,025
Aug-78	34.1	21.6	12.5		273	50,827	227	23,701	262	74,528
Sep-78	35.4	23.8	11.6		244	49,236	230	22,260	242	71,496
Oct-78	34.5	21.6	12.9		223	42,527	237	25,493	237	68,020
Nov-78	31.6	20.2	11.4		175	29,558	197	18,783	183	48,341
Dec-78	28.9	19.3	9.6		260	41,776	314	25,283	278	67,059
Jan-79	31.1	21.0	10.1		157	27,365	276	23,222	195	50,587
Feb-79	30.0	20.1	10.0		216	36,135	298	24,700	243	60,835
Mar-79	36.3	25.1	11.2		177	36,942	286	26,719	210	63,661
Apr-79	36.0	25.1	10.9		220	46,009	485	44,073	300	90,082
May-79	35.9	24.9	10.9		135	28,168	349	31,813	201	59,981
Jun-79	37.0	24.0	13.0		191	38,392	297	32,117	229	70,509
Jul-79	35.0	23.0	12.0		236	45,185	295	29,521	256	74,706
Aug-79	35.2	23.4	11.8		212	39,648	314	30,828	240	70,476
Sep-79	34.2	21.8	12.4		223	40,555	291	30,047	248	70,602
Oct-79	33.8	21.7	12.0		235	42,565	240	24,069	237	66,634
Nov-79	30.5	21.2	9.3		293	51,712	462	35,990	345	87,702
Dec-79	31.6	21.2	10.4		281	49,721	409	35,483	323	85,204
Jan-80	32.8	21.7	11.1		274	49,491	322	29,849	290	79,340
Feb-80	30.8	21.0	9.8		231	40,420	355	28,985	270	69,405
Mar-80	31.3	23.2	8.1		265	51,296	870	58,772	422	110,068

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim	Ind Prim	Sec Inf	Mun Prim Influent TSS	Mun Prim	Ind Prim	Ind Prim	Plant	KWRP
		Flow	Flow	Flow as stated		Loading TSS	Influent TSS	Loading TSS	Influent TSS	Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Apr-80	32 1	24 2	7 9		346	69,768	270	17,739	327	87,507
May-80	27 8	19 5	8 3		240	38,943	461	31,855	306	70,798
Jun-80	33 7	24 0	9 6		237	47,478	355	28,571	271	76,049
Jul-80	31 0	22 5	8 5		281	52,912	319	22,642	292	75,554
Aug-80	30 0	21 6	8 4		209	37,867	375	26,128	256	63,995
Sep-80	28 3	17 9	10 4		283	42,168	183	15,910	246	58,078
Oct-80	29 8	23 4	6 3		344	67,290	734	38,680	427	105,970
Nov-80	25 8	17 2	8 6		323	46,315	417	30,048	354	76,363
Dec-80	28 3	20 1	8 2		338	56,663	253	17,426	313	74,089
Jan-81	29 9	20 4	9 5		302	50,864	501	39,500	363	90,364
Feb-81	32 6	23 2	9 4		274	53,191	365	28,475	300	81,666
Mar-81	31 9	22 2	9 7		384	70,968	333	26,970	368	97,938
Apr-81	30 7	21 1	9 7		327	57,401	347	28,047	333	85,448
May-81	31 2	20 9	10 3		314	54,814	278	23,919	302	78,733
Jun-81	31 1	21 4	9 7		438	78,267	204	16,510	365	94,777
Jul-81	30 1	21 4	8 7		430	76,905	167	12,098	354	89,003
Aug-81	29 9	21 3	8 6		414	73,563	221	15,826	359	89,389
Sep-81	30 4	21 5	8 9		440	78,728	187	13,914	366	92,642
Oct-81	30 8	22 0	8 8		445	81,760	224	16,411	382	98,171
Nov-81	29 6	22 1	7 4		472	87,442	184	12,325	405	99,767
Dec-81	28 2	20 2	8 0		476	80,623	155	10,598	388	91,221
Jan-82										
Feb-82										
Mar-82										
Apr-82										
May-82										
Jun-82										
Jul-82										
Aug-82										
Sep-82										
Oct-82										
Nov-82										
Dec-82										
Jan-83	27 4	27 4	0 0		507	116,746			507	116,746
Feb-83	26 5	26 5	0 0		599	132,791			599	132,791

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim	Ind Prim	Sec Inf	Mun Prim Influent TSS	Mun Prim	Ind Prim	Ind Prim	Plant	KWRP
		Flow	Flow	Flow as stated		Flow	Flow	Flow	Flow	Flow
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Mar-83	26.0	26.0	0.0		721	156,120			721	156,120
Apr-83	27.6	27.6	0.0		819	189,880			819	189,880
May-83	26.6	26.6	0.0		664	146,400			664	146,400
Jun-83	24.4	24.4	0.0		525	107,400			525	107,400
Jul-83	26.2	26.2	0.0		456	100,338			456	100,338
Aug-83	27.8	27.8	0.0		594	139,330			594	139,330
Sep-83	25.3	25.3	0.0		913	192,927			914	192,927
Oct-83	26.7	26.7	0.0		1,050	234,852			1,050	234,852
Nov-83	37.0	37.0	0.0		1,126	347,449			1,126	347,449
Dec-83	37.7	37.7	0.0		946	299,210			946	299,210
Jan-84	30.3	30.3	0.0		742	234,735			742	234,735
Feb-84	31.8	31.8	0.0		798	265,870			798	265,870
Mar-84	30.9	30.9	0.0		931	239,745			931	239,745
Apr-84	29.1	29.1	0.0		868	211,400			868	211,400
May-84	29.6	29.6	0.0		749	184,661			749	184,661
Jun-84	30.8	30.8	0.0		681	174,510			681	174,510
Jul-84	28.4	28.4	0.0		861	203,565			861	203,565
Aug-84	28.8	28.8	0.0		710	176,484			710	176,484
Sep-84	30.2	30.2	0.0		594	148,172			594	148,172
Oct-84	31.0	31.0	0.0		505	131,383			505	131,383
Nov-84	29.6	29.6	0.0		405	101,120			405	101,120
Dec-84	29.5	29.5	0.0		354	87,443			354	87,443
Jan-85	32.5	32.5	0.0		349	93,790			349	93,790
Feb-85	35.3	35.3	0.0		411	118,999			411	118,999
Mar-85	39.9	39.9	0.0		276	90,045			276	90,045
Apr-85	33.0	33.0	0.0		295	80,899			295	80,899
May-85	28.4	28.4	0.0		335	79,720			335	79,720
Jun-85	28.0	28.0	0.0		366	85,650			366	85,650
Jul-85	27.8	23.7	4.1		614	119,295	66	2,282	524	121,577
Aug-85	27.0	22.7	4.4		651	123,316	27	966	551	124,282
Sep-85	27.6	23.1	4.6		497	96,073	50	1,881	425	97,954
Oct-85	28.3	24.2	4.1		375	75,416	58	1,987	328	77,403
Nov-85	31.9	27.8	4.1		438	100,730	56	1,927	386	102,657
Dec-85	29.6	25.5	4.1		297	63,840	65	2,138	267	65,978
Jan-86	30.1	25.9	4.1		362	78,884	94	3,260	327	82,144

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow	Mun Prim Influent TSS <i>mg/L</i>	Mun Prim Loading TSS	Ind Prim Influent TSS <i>mg/L</i>	Ind Prim Loading TSS <i>lbs/day</i>	Plant Influent TSS <i>mg/L</i>	KWRP Loading TSS <i>lbs/day</i>
		<i>mgd</i>	<i>mgd</i>	<i>mgd</i>		<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>
Feb-86	30.2	26.1	4.1		256	55,938	73	2,485	232	58,423
Mar-86	25.8	21.2	4.6		270	48,371	59	2,302	236	50,673
Apr-86	24.3	20.0	4.3		362	60,584	57	2,071	309	62,655
May-86	24.5	20.4	4.1		468	79,806	57	1,980	401	81,786
Jun-86	26.3	22.1	4.2		307	57,181	75	2,469	272	59,650
Jul-86	26.9	22.0	4.9		234	43,056	167	6,855	222	49,911
Aug-86	24.1	20.2	3.9		197	33,785	36	1,273	174	35,058
Sep-86	25.3	21.1	4.2		212	37,690	28	967	183	38,657
Oct-86	30.0	25.6	4.4		161	33,851	39	1,435	141	35,286
Nov-86	24.1	20.2	3.9		237	40,188	46	1,500	207	41,688
Dec-86	23.5	19.3	4.2		223	36,438	53	1,728	195	38,166
Jan-87	24.3	20.2	4.1		278	46,985	57	1,966	242	48,951
Feb-87	23.9	20.0	3.9		288	48,210	50	1,630	250	49,840
Mar-87	24.6	20.2	4.4		300	50,437	40	1,462	253	51,899
Apr-87	24.0	19.9	4.1		292	48,531	66	2,359	254	50,890
May-87	22.3	18.2	4.1		317	48,623	72	2,297	274	50,920
Jun-87	22.3	17.8	4.5		322	48,005	41	1,533	266	49,538
Jul-87	20.5	16.1	4.4		263	35,996	69	2,261	224	38,257
Aug-87	26.6	21.9	4.7		231	41,946	65	2,501	200	44,447
Sep-87	25.5	20.8	4.7		250	44,108	131	6,077	236	50,185
Oct-87	24.0	19.3	4.7		244	39,484	84	3,176	213	42,660
Nov-87	22.9	18.0	4.9		221	35,360	142	6,063	217	41,423
Dec-87	24.2	19.3	4.9		227	36,668	93	3,717	200	40,385
Jan-88	25.6	20.7	4.9		252	43,899	132	5,379	231	49,278
Feb-88	26.3	21.6	4.7		263	47,578	70	2,778	229	50,356
Mar-88	27.6	22.1	5.5		210	38,608	83	3,713	184	42,321
Apr-88	29.8	25.0	4.8		196	40,782	75	3,063	176	43,845
May-88	27.0	22.1	4.9		243	45,450	82	3,342	217	48,792
Jun-88	27.6	22.3	5.3		262	49,075	119	5,242	236	54,317
Jul-88	28.3	22.9	5.4		238	45,657	119	5,480	217	51,137
Aug-88	27.7	22.4	5.3		284	53,499	64	2,805	244	56,304
Sep-88	27.6	22.3	5.3		209	39,244	90	3,938	188	43,182
Oct-88	28.7	23.6	5.1		202	40,279	439	11,567	217	51,846
Nov-88	29.8	24.4	5.4		202	41,509	95	4,306	184	45,815

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow <i>mgd</i>	Mun Prim Flow <i>mgd</i>	Ind Prim Flow <i>mgd</i>	Sec Inf as stated <i>mgd</i>	Mun Prim Influent TSS <i>mg/L</i>	Mun Prim Loading TSS <i>lbs/day</i>	Ind Prim Influent TSS <i>mg/L</i>	Ind Prim Loading TSS <i>lbs/day</i>	Plant Influent TSS <i>mg/L</i>	KWRP Loading TSS <i>lbs/day</i>
Dec-88	28.0	22.5	5.5		208	39,613	98	4,467	188	44,080
Jan-89	27.9	22.4	5.5		242	45,264	97	4,335	214	49864
Feb-89	28.7	23.1	5.6		264	50,848	102	4,727	232	55576
Mar-89	29.8	24.3	5.5		249	50,589	98	4,509	222	55122
Apr-89	29.7	24.5	5.3		233	47,846	90	4,010	209	51856
May-89	29.0	23.6	5.4		224	44,593	98	4,383	202	48976
Jun-89	35.3	29.1	6.2		167	40,475	84	4,529	153	45004
Jul-89	30.2	25.3	4.9		201	42,952	79	3,154	183	46107
Aug-89	31.3	26.0	5.2		198	43,252	73	3,181	178	46433
Sep-89	32.1	26.9	5.2		169	37,820	54	2,374	150	40195
Oct-89	30.1	24.8	5.3		188	39,084	73	3,220	169	42304
Nov-89	29.8	24.6	5.1		217	44,667	95	4,013	196	48681
Dec-89	28.3	23.4	4.9		256	50,153	133	6,152	239	56305
Jan-90	30.5	25.3	5.2		271	57,538	97	4,138	242	61676
Feb-90	29.4	24.2	5.3		248	50,239	126	5,594	228	55833
Mar-90	31.1	25.6	5.5		260	56,059	112	5,112	236	61171
Apr-90	31.6	26.3	5.3		261	57,605	111	4,999	237	62604
May-90	29.9	24.3	5.6		286	58,588	84	3,964	251	62552
Jun-90	29.3	24.2	5.1		258	52,443	76	3,272	228	55715
Jul-90	29.7	24.0	5.7		299	60,657	80	3,836	260	64493
Aug-90	30.9	25.0	5.9		254	53,250	71	3,507	221	56757
Sep-90	31.2	25.7	5.5		284	61,056	95	4,427	251	65484
Oct-90	29.5	24.5	5.0		303	61,495	87	3,666	265	65161
Nov-90	30.8	25.3	5.5		318	68,611	105	4,836	286	73447
Dec-90	30.9	25.2	5.7		254	53,854	106	5,065	229	58919
Jan-91	31.8	26.1	5.7		270	59,201	105	4,963	242	64164
Feb-91	28.2	23.6	4.6		271	53,417	98	3,815	244	57232
Mar-91	28.7	24.2	4.4		260	52,187	97	3,874	234	56061
Apr-91	31.2	26.7	4.4		267	59,680	78	3,199	242	62879
May-91	32.1	27.4	4.7		241	55,212	78	3,008	218	58221
Jun-91	31.5	25.9	5.7		306	66,760	75	3,584	268	70344
Jul-91	31.0	25.6	5.4		255	55,137	56	2,505	223	57641
Aug-91	30.4	25.0	5.5		202	42,267	57	2,616	177	44883
Sep-91	29.0	23.2	5.8		255	49,083	64	3,222	216	52305
Oct-91	30.1	24.4	5.7		264	53,389	99	4,166	229	57555

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow	Mun Prim Influent TSS <i>mg/L</i>	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS <i>mg/L</i>	KWRP Loading TSS <i>lbs/day</i>
		<i>mgd</i>	<i>mgd</i>	<i>mgd</i>		<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Nov-91	31 9	25 3	6 6		281	59,850	90	5,095	244	64946
Dec-91	32 0	25 8	6 1		291	63,657	124	6,363	262	70019
Jan-92	30 5	24 7	5 7		259	53,603	73	3,618	225	57221
Feb-92	30 7	24 9	5 8		289	60,231	52	2,670	246	62901
Mar-92	30 7	24 7	5 9		268	55,555	76	3,749	232	59304
Apr-92	30 7	24 8	5 9		285	59,414	70	3,530	246	62944
May-92	29 5	23 8	5 8		278	55,579	48	2,416	235	57995
Jun-92	29 7	24 0	5 6		282	56,961	54	2,685	241	59646
Jul-92	29 7	24 0	5 7		269	55,006	85	4,206	239	59212
Aug-92	31 1	24 3	6 8		274	55,729	58	3,301	228	59030
Sep-92	31 6	25 6	6 0		264	56,931	64	3,473	229	60405
Oct-92	30 9	24 5	6 3		269	55,449	68	3,769	230	59218
Nov-92	32 7	25 1	7 6		239	50,157	78	5,131	203	55288
Dec-92	30 9	23 5	7 4		260	51,650	77	4,862	219	56513
Jan-93	33 6	25 9	7 7		200	43,664	110	7,169	182	50833
Feb-93	31 7	23 5	8 2		231	45,615	80	5,541	193	51156
Mar-93	32 2	24 3	7 9		231	46,827	64	4,246	190	51073
Apr-93	33 9	26 7	7 2		216	48,512	72	4,391	187	52904
May-93	31 6	26 0	5 6		265	57,657	75	3,539	232	61196
Jun-93	32 5	25 1	7 3		295	62,243	57	3,464	243	65706
Jul-93	32 0	24 5	7 5		264	54,059	58	3,628	216	57687
Aug-93	31 6	24 7	6 9		460	94,266	72	4,068	373	98335
Sep-93	32 6	25 5	7 1		275	58,936	52	3,119	228	62055
Oct-93	32 7	25 7	7 0		287	62,009	56	3,256	239	65265
Nov-93	31 0	24 1	6 8		262	52,957	46	2,650	215	55608
Dec-93	30 9	23 9	6 9		284	57,260	59	3,412	236	60673
Jan-94	31 6	25 0	6 6		297	62,190	77	4,193	252	66382
Feb-94	32 8	25 9	6 9		224	48,432	66	3,880	191	52312
Mar-94	33 4	26 2	7 2		285	62,502	55	3,347	236	65849
Apr-94	33 3	25 8	7 5		291	62,781	66	4,093	241	66874
May-94	32 4	24 9	7 5		288	60,049	43	2,714	233	62763
Jun-94	34 5	26 8	7 7		295	65,769	46	2,970	239	68738
Jul-94	33 6	25 9	7 7		276	60,051	54	3,382	226	63433
Aug-94	34 5	26 4	8 1		305	67,288	47	3,137	245	70425
Sep-94	33 1	25 1	8 0		326	68,722	49	3,309	261	72031

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
		<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Oct-94	31.5	24.1	7.3		285	57,595	114	6,532	244	64127
Nov-94	32.0	24.4	7.6		260	53,393	54	3,401	213	56794
Dec-94	31.3	24.4	7.0		253	51,856	64	3,763	213	55619
Jan-95	31.6	24.4	7.2		280	57,372	53	3,224	230	60596
Feb-95	30.3	23.2	7.1		293	57,187	64	3,883	242	61071
Mar-95	31.0	23.8	7.2		281	55,960	58	3,456	230	59416
Apr-95	30.3	23.5	6.7		252	49,782	63	3,521	211	53304
May-95	31.0	24.0	7.0		272	54,557	50	2,924	222	57481
Jun-95	31.0	23.9	7.1		285	57,142	40	2,442	230	59584
Jul-95	31.6	24.4	7.3		250	51,412	27	1,644	201	53056
Aug-95	34.0	25.7	8.4		313	67,238	50	3,530	249	70768
Sep-95	31.8	23.8	8.0		299	60,079	48	3,214	239	63293
Oct-95	31.4	24.0	7.3		305	61,059	60	3,703	248	64761
Nov-95	31.8	24.6	7.1		283	58,413	97	6,031	243	64444
Dec-95	30.2	23.5	6.7		258	51,227	60	3,431	217	54658
Jan-96	31.6	23.4	8.1		271	52,984	80	5,465	222	58449
Feb-96	30.8	23.1	7.8		269	51,964	87	5,714	224	57678
Mar-96	31.0	23.3	7.6		286	55,893	67	4,590	234	60483
Apr-96	31.2	23.2	8.0		293	56,903	81	5,478	240	62381
May-96	31.0	23.8	7.1		293	58,151	67	4,055	241	62206
Jun-96	32.2	24.4	7.8		310	63,673	55	3,628	251	67301
Jul-96	31.2	23.3	7.9		316	61,939	70	4,697	256	66636
Aug-96	33.4	24.2	9.2		284	57,730	78	6,008	229	63738
Sep-96	32.9	23.5	9.3		307	60,970	80	6,253	245	67223
Oct-96	34.3	24.6	9.7		280	57,654	107	8,710	232	66364
Nov-96	33.6	27.5	6.1		261	60,480	112	5,737	237	66218
Dec-96	32.0	27.9	4.2		264	61,696	99	3,492	244	65187
Jan-97	32.9	29.3	3.6		247	60,757	103	3,139	233	63897
Feb-97	35.2	31.8	3.4		242	64,457	110	3,201	231	67658
Mar-97	34.3	32.7	1.6		221	60,367	97	1,315	215	61682
Apr-97	33.1	26.8	6.4		286	63,838	113	5,991	253	69829
May-97	32.1	26.8	5.2		270	60,362	109	4,787	243	65149
Jun-97	33.1	28.3	4.8		287	67,619	107	4,301	261	71919
Jul-97	31.8	23.9	8.0		255	50,826	73	4,862	210	55688
Aug-97	32.0	25.3	6.7		289	61,069	104	5,833	251	66902

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim Flow	Ind Prim Flow	Sec Inf Flow as stated	Mun Prim Influent TSS	Mun Prim Loading TSS	Ind Prim Influent TSS	Ind Prim Loading TSS	Plant Influent TSS	KWRP Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Sep-97	33 0	24 4	8 6		291	59,097	127	9,180	248	68277
Oct-97	31 4	28 4	3 0		269	63,856	83	2,057	252	65914
Nov-97	31 1	22 8	8 3		271	51,626	126	8,674	233	60300
Dec-97	31 4	22 7	8 8		286	54,183	87	6,314	231	60497
Jan-98	34 1	25 2	8 9		252	52,913	141	10,481	223	63394
Feb-98	33 4	24 4	9 1		273	55,379	100	7,589	226	62968
Mar-98	34 2	25 3	8 9		267	56,336	95	7,045	222	63381
Apr-98	34 5	26 4	8 1		309	67,976	96	6,508	259	74484
May-98	33 5	24 7	8 9		288	59,320	68	4,994	230	64314
Jun-98	32 1	25 4	6 7		310	65,476	80	4,458	261	69934
Jul-98	30 7	23 6	7 1		330	65,017	93	5,548	275	70565
Aug-98	32 2	23 6	8 6		310	60,965	85	6,115	249	67081
Sep-98	31 9	23 3	8 6		295	57,433	52	3,713	230	61146
Oct-98	31 8	23 6	8 3		278	54,589	58	3,989	221	58578
Nov-98	29 8	24 0	5 8		307	61,522	62	3,007	260	64529
Dec-98	29 7	22 3	7 4		276	51,292	57	3,479	221	54771
Jan-99	31 8	24 0	7 8		308	62,313	97	6,307	259	68,620
Feb-99	31 8	24 6	7 2		287	59,054	45	2,749	233	61,804
Mar-99	31 7	23 8	7 9		314	62,344	59	3,971	251	66,316
Apr-99	33 3	25 2	8 2		282	59,390	96	6,544	237	65,934
May-99	32 0	24 6	7 3		309	63,528	76	5,005	257	68,533
Jun-99	32 8	24 4	8 5		292	59,405	67	4,768	234	64,173
Jul-99	32 9	25 9	7 0		320	69,360	102	6,248	275	75,608
Aug-99	33 0	24 0	9 0		313	62,976	107	8,046	258	71,023
Sep-99	32 5	24 1	8 4		331	66,772	123	8,589	278	75,361
Oct-99	31 2	24 5	6 7		319	65,335	115	6,555	277	71,890
Nov-99	30 0	22 6	7 4		343	65,379	104	6,622	288	72,000
Dec-99	30 3	23 1	7 2		295	56,761	148	8,909	260	65,670
Jan-00	31 5	23 4	8 1		328	64,352	125	8,454	277	72,806
Feb-00	31 8	24 1	7 7		373	75,158	127	8,211	314	83,369
Mar-00	32 4	24 9	7 5		362	75,017	130	8,229	308	83,245
Apr-00	30 8	23 3	7 5		365	70,995	149	9,418	313	80,414
May-00	31 6	24 5	7 1		409	83,876	106	6,409	342	90,286
Jun-00	31 2	23 2	8 0		405	78,710	94	6,292	326	85,002
Jul-00	30 0	22 5	7 5		306	57,820	131	8,252	264	66,072

Kalamazoo Water Reclamation Plant Loading Data February 1955 - March 2003

	Plant Flow	Mun Prim	Ind Prim	Sec Inf	Mun Prim Influent TSS	Mun Prim	Ind Prim	Ind Prim	Plant	KWRP
		Flow	Flow	Flow as stated		Loading TSS	Influent TSS	Loading TSS	TSS	Loading TSS
	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mgd</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>
Aug-00	31 6	24 1	7 5		414	83,528	218	13,026	366	96,554
Sep-00	32 9	24 3	8 5		394	80,083	166	11,759	335	91,842
Oct-00	31 6	24 5	7 1		457	93,642	174	10,656	395	104,298
Nov-00	31 3	24 4	6 9		413	84,426	164	9,384	359	93,810
Dec-00	30 2	23 9	6 3		364	72,747	205	11,216	333	83,963
Jan-01	27 3	26 9	0 4		337	76,101	103	330	335	76,431
Feb-01	30 6	30 6	0 0		309	78,106		0	306	78,106
Mar-01	29 0	29 0	0 0		313	75,545		0	313	75,545
Apr-01	28 1	28 1	0 0		377	88,430		0	378	88,430
May-01	29 8	29 8	0 0		371	92,034		0	370	92,034
Jun-01	28 0	28 0	0 0		375	87,797		0	376	87,797
Jul-01	25 5	25 5	0 0		394	83,910		0	395	83,910
Aug-01	27 4	27 4	0 0		387	88,855		0	388	88,855
Sep-01	27 8	27 8	0 0		361	84,146		0	364	84,146
Oct-01	30 5	30 5	0 0		394	99,356		0	391	99,356
Nov-01	30 7	30 7	0 0		345	87,997		0	344	87,997
Dec-01	26 7	26 7	0 0		347	77,441		0	348	77,441
Jan-02	28 3	28 3	0 0		353	83,403		0	353	83,403
Feb-02	29 2	29 2	0 0		345	84,279		0	346	84,279
Mar-02	30 6	30 6	0 0		305	78,079		0	306	78,079
Apr-02	29 4	29 4	0 0		333	82,145		0	335	82,145
May-02	29 0	29 0	0 0		369	89,011		0	368	89,011
Jun-02	28 0	28 0	0 0		421	98,436		0	422	98,436
Jul-02	27 3	27 3	0 0		395	90,243		0	397	90,243
Aug-02	27 5	27 5	0 0		392	90,210		0	394	90,210
Sep-02	26 7	26 7	0 0		402	89,784		0	404	89,784
Oct-02	26 8	26 8	0 0		384	85,680		0	383	85,680
Nov-02	27 9	27 9	0 0		326	75,953		0	326	75,953
Dec-02	28 0	28 0	0 0		372	87,148		0	373	87,148
Jan-03	27 9	27 9	0 0		351	81,857		0	352	81,857
Feb-03	28 6	28 6	0 0		400	95,694		0	401	95,694
Mar-03	27 1	27 1	0 0		406	91,554		0	406	91,554

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind											
	Mun Prim Effluent TSS <i>mg/L</i>	Mun Prim Effluent TSS <i>lbs/day</i>	Ind Prim Effluent TSS <i>mg/L</i>	Ind Prim Effluent TSS <i>lbs/day</i>	Prim Effluent TSS <i>mg/L</i>	Prim Effluent TSS <i>lbs/day</i>	Secondary Effluent TSS <i>mg/L</i>	Secondary Effluent TSS <i>lbs/day</i>	Plant Effluent TSS <i>mg/L</i>	Plant Effluent TSS <i>lbs/day</i>		
Jan-54												
Feb-54												
Mar-54												
Apr-54												
May-54												
Jun-54												
Jul-54												
Aug-54												
Sep-54												
Oct-54												
Nov-54												
Dec-54												
Jan-55												
Feb-55												
Mar-55												
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Jan-57												
Feb-57												
Mar-57												
Apr-57												
May-57												
Jun-57												
Jul-57												
Aug-57												
Sep-57												
Oct-57												
Nov-57												
Dec-57												
Jan-58												
Feb-58												
Mar-58												
Apr-58												
May-58												

plant placed in service 3PM Feb 22, 1955 - only flow data

only flow data

only flow data

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind											
	Mun Prim Effluent <i>mg/L</i>	Mun Prim Effluent <i>TSS</i>	Ind Prim Effluent <i>mg/L</i>	Ind Prim Effluent <i>TSS</i>	Pnm Effluent <i>mg/L</i>	Pnm Effluent <i>TSS</i>	Secondary Effluent <i>mg/L</i>	Secondary Effluent <i>TSS</i>	Plant Effluent <i>mg/L</i>	Plant Effluent <i>TSS</i>		
Jun-58									82	4,192		
Jul-58									68	3,437		
Aug-58									66	3,349		
Sep-58									84	4,243		
Oct-58									103	5,265		
Nov-58									93	4,390		
Dec-58									104	5,266		
Jan-59									109	5,517		
Feb-59									105	5,742		
Mar-59									108	6,901		
Apr-59									92	5,880		
May-59									83	5,079		
Jun-59									74	4,169		
Jul-59									72	3,704		
Aug-59									69	3,443		
Sep-59									76	3,687		
Oct-59									88	4,670		
Nov-59									94	4,424		
Dec-59									101	5,919		
Jan-60									97	6,290		
Feb-60									98	6,426		
Mar-60									103	6,423		
Apr-60									89	6,274		
May-60									86	5,385		
Jun-60									80	5,310		
Jul-60									63	3,657		
Aug-60									63	3,556		
Sep-60									72	3,863		
Oct-60									84	4,206		
Nov-60									89	4,631		
Dec-60									92	4,784		
Jan-61									94	5,201		
Feb-61									98	5,542		
Mar-61									93	5,847		
Apr-61									90	5,828		
May-61									79	5,160		
Jun-61									67	4,087		
Jul-61									56	3,204		
Aug-61									54	3,163		
Sep-61									63	4,087		
Oct-61									80	4,921		
Nov-61									84	5,059		
Dec-61									89	5,071		
Jan-62									96	5,550		
Feb-62									95	5,511		
Mar-62									91	6,251		
Apr-62									89	5,895		
May-62									73	5,038		
Jun-62									62	3,862		
Jul-62									48	2,815		
Aug-62									49	2,828		
Sep-62									73	3,985		
Oct-62									80	4,883		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind						Mun & Ind						
	Mun Prim Effluent	Mun Prim Effluent	Ind Prim Effluent	Ind Prim Effluent	Pnm TSS	Pnm TSS	Secondary Effluent	Secondary Effluent	Plant Effluent	Plant Effluent	TSS	TSS	
	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	
Nov-62									95	5,358			
Dec-62									97	5,488			
Jan-63									103	6,093			
Feb-63									106	6,312			
Mar-63									101	7,050			
Apr-63									91	5,989			
May-63									79	5,349			
Jun-63									66	4,051			
Jul-63									51	3,011			
Aug-63									55	3,057			
Sep-63									62	3,727			
Oct-63									69	4,336			
Nov-63									72	4,163			
Dec-63									89	4,831			
Jan-64									80	4,810	chrome problems from Shakespeare on Jan 8		
Feb-64									86	5,275			
Mar-64									91	5,684			
Apr-64									90	6,190	bypassed 1.5 Mgal to river on April 4-5 to connect Spring Valley interceptor		
May-64									79	5,345			
Jun-64									75	4,602			
Jul-64									62	3,737			
Aug-64									63	3,654			
Sep-64									77	4,856			
Oct-64									93	5,698			
Nov-64									89	5,269			
Dec-64									91	5,422			
Jan-65									99	6,485			
Feb-65									103	7,319			
Mar-65									100	7,530			
Apr-65									94	7,072			
May-65									86	6,262			
Jun-65									75	5,644			
Jul-65									70	4,562	starting construction of secondary facilities		
Aug-65									74	4,613	#2 primary digester inoperative because of failure of the overload warning system		
Sep-65									91	6,152	Dewatering and cleaning the primary digester #2 Earth dikes made on newly filled areas at south end of property for digested sludge disposal		
Oct-65									110	7,334	Dewatering and cleaning the primary digester #2		
Nov-65									94	6,304	filtering raw sludge while cleaning digesters		
Dec-65									97	6,750	filtering raw sludge while cleaning digesters		
Jan-66									96	6,894	converting #2 primary digester		
Feb-66									112	8,299			
Mar-66									117	10,439			
Apr-66									119	9,387			
May-66									108	9,125			
Jun-66									136	10,594			
Jul-66									114	8,029			
Aug-66									105	7,235			
Sep-66									125	8,334			
Oct-66									128	8,386			
Nov-66									115	8,329			
Dec-66									105	7,978	bypassed 30 hrs (0.318 Mgal) starting Dec 17 for installation of new line to Settling Tank Junction Chamber		
Jan-67									118	8,124			
Feb-67									120	9,350			
Mar-67									122	11,378	Rex Hawthorne Kalamazoo and National Gypsum papermills turned into the industrial interceptor and bypassed at the pumping station		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind													
	Mun Pnm Effluent TSS <i>mg/L</i>	Mun Pnm Effluent TSS <i>lbs/day</i>	Ind Prim Effluent TSS <i>mg/L</i>	Ind Prim Effluent TSS <i>lbs/day</i>	Mun & Ind Pnm Effluent TSS <i>mg/L</i>	Mun & Ind Pnm Effluent TSS <i>lbs/day</i>	Secondary Effluent TSS <i>mg/L</i>	Secondary Effluent TSS <i>lbs/day</i>	Plant Effluent TSS <i>mg/L</i>	Plant Effluent TSS <i>lbs/day</i>				
Apr-67									111	11,474				
May-67									104	9,220				
Jun-67	154	14,146			154	14,146	117	27,427	117	27,427	Secondary receiving Industrial flow directly from paper mills on May 12			
Jul-67							68	13,873	68	13,873	Secondary receiving Industrial flow directly from paper mills			
Aug-67	145	11,723			145	11,723	82	16,717	82	16,717	Secondary receiving Industrial flow directly from paper mills			
Sep-67	124	10,589			124	10,589	69	13,786	69	13,786	Secondary receiving Industrial flow directly from paper mills			
Oct-67	166	14,655			166	14,655	62	13,802	62	13,802	Secondary receiving Industrial flow directly from paper mills			
Nov-67	140	13,362			140	13,362	77	16,547	77	16,547	Secondary receiving Industrial flow directly from paper mills			
Dec-67	149	14,080			149	14,080	82	16,717	82	16,717	Secondary receiving Industrial flow directly from paper mills			
Jan-68	152	14,030			152	14,030	43	9,299	43	9,299	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Feb-68	148	16,152			148	16,152	40	9,225	40	9,225	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Mar-68	132	12,324			132	12,324	27	5,900	27	5,900	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Apr-68	140	13,238			140	13,238	89	19,068	89	19,068	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
May-68	142	12,480			142	12,480	167	34,939	167	34,939	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Jun-68	158	14,526			158	14,526	223	47,025	223	47,025	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Jul-68	157	16,735			157	16,735	76	16,131	76	16,131	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Aug-68	195	19,120			195	19,120	226	48,622	226	48,622	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Sep-68	209	20,755			209	20,755	80	15,466	80	15,466	Secondary receiving Industrial flow directly from paper mills, No letter include with the DEQ Report			
Oct-68	180	18,193			180	18,193	94	19,568	94	19,568	Secondary receiving Industrial flow directly from paper mills No letter include with the DEQ Report			
Nov-68	184	18,468			184	18,468	79	15,380	79	15,380	Secondary receiving Industrial flow directly from paper mills, No letter include with the DEQ Report			
Dec-68	174	17,216			174	17,216	141	25,756	141	25,756	Secondary receiving Industrial flow directly from paper mills, No letter include with the DEQ Report			
Jan-69	157	17,776			157	17,776	63	13,017	63	13,017	Secondary receiving Industrial flow directly from paper mills, No letter include with the DEQ Report			
Feb-69	181	20,930			181	20,930	155	38,106	155	38,106				
Mar-69	189	19,276			189	19,276	300	76,573	300	76,573				
Apr-69	239	26,681			239	26,681	397	107,775	397	107,775				
May-69	189	19,347			189	19,347	70	18,446	70	18,446				
Jun-69	177	18,118			177	18,118	30	7,722	30	7,722				
Jul-69	198	21,661			198	21,661	73	17,469	73	17,469				
Aug-69	206	21,976			206	21,976	146	34,706	146	34,706				
Sep-69	249	24,986			249	24,986	141	33,492	141	33,492				
Oct-69	250	26,685			250	26,685	228	57,636	228	57,636				
Nov-69	219	25,713			219	25,713	266	61,813	266	61,813				
Dec-69	215	20,533			215	20,533	198	43,451	198	43,451				
Jan-70	195	19,640			195	19,640	184	42,415	184	42,415				
Feb-70	131	15,389			131	15,389	107	24,887	107	24,887				
Mar-70	116	13,588			116	13,588	86	18,080	86	18,080				
Apr-70	105	12,716			105	12,716	91	20,840	91	20,840				
May-70	97	11,725			97	11,725	62	10,886	62	10,886				
Jun-70	115	13,182			115	13,182	109	22,463	109	22,463				
Jul-70	133	15,024			133	15,024	79	15,744	79	15,744				
Aug-70	117	13,084			117	13,084	79	15,836	79	15,836				
Sep-70	150	16,137			150	16,137	87	16,619	87	16,619				
Oct-70	181	19,920			181	19,920	148	30,176	148	30,176				
Nov-70	236	25,576			236	25,576	146	28,305	146	28,305				
Dec-70	157	16,745			157	16,745	131	23,410	131	23,410				
Jan-71	162	17,368			162	17,368	142	23,524	142	23,524				
Feb-71	187	23,854			187	23,854	214	39,861	214	39,861				
Mar-71	144	19,283			144	19,283	253	51,263	253	51,263				
Apr-71	153	17,934			153	17,934	122	21,527	122	21,527				
May-71	144	15,226			144	15,226	149	25,369	149	25,369				
Jun-71	153	18,299			153	18,299	69	12,574	69	12,574				
Jul-71	133	15,064			133	15,064	110	18,845	110	18,845				
Aug-71	196	22,154			196	22,154	172	31,049	172	31,049				

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind				Mun & Ind				Plant			
	Mun Prim Effluent	Mun Prim Effluent	Ind Prim Effluent	Ind Prim Effluent	Phm TSS	Phm TSS	Secondary Effluent	Secondary Effluent	Plant Effluent	Plant Effluent	TSS	TSS
	TSS mg/L	lbs/day	TSS mg/L	lbs/day	TSS mg/L	lbs/day	TSS mg/L	lbs/day	TSS mg/L	lbs/day	TSS	TSS
	mo/L	lbs/day	mo/L	lbs/day	mo/L	lbs/day	mo/L	lbs/day	mo/L	lbs/day	mo/L	lbs/day
Sep-71	258	30,057			258	30,057	203	34,915	203	34,915		
Oct-71	145	16,580			145	16,580	176	31,827	176	31,827		
Nov-71	118	13,236			118	13,236	136	23,722	136	23,722		
Dec-71	103	12,201			103	12,201	77	12,839	77	12,839		
Jan-72	113	13,347			113	13,347	151	24,323	151	24,323		
Feb-72	191	22,670			191	22,670	304	54,452	304	54,452		
Mar-72	133	18,348			133	18,348	169	34,263	169	34,263		
Apr-72	311	42,080			311	42,080	130	25,501	130	25,501		
May-72	245	33,146			245	33,146	131	26,528	131	26,528		
Jun-72	280	36,791			280	36,791	208	41,141	208	41,141		
Jul-72	226	27,985			226	27,985	198	37,139	198	37,139		
Aug-72	315	42,251			315	42,251	179	44,854	179	44,854		
Sep-72	221	30,572			221	30,572	94	24,197	94	24,197		
Oct-72	175	24,417			175	24,417	98	24,360	98	24,360		
Nov-72	247	35,476			247	35,476	72	17,626	72	17,626		
Dec-72	257	35,592			257	35,592	60	14,422	60	14,422		
Jan-73	188	28,997			188	28,997	53	13,948	53	13,948		
Feb-73	210	30,772			210	30,772	81	20,138	81	20,138		
Mar-73	236	38,642			236	38,642	71	19,150	71	19,150		
Apr-73	229	37,951			229	37,951	67	17,963	67	17,963		
May-73	175	28,390			175	28,390	80	22,300	80	22,300		
Jun-73	176	28,992			176	28,992	76	22,331	76	22,331		
Jul-73	144	21,460			144	21,460	75	20,709	75	20,709		
Aug-73	166	25,158			166	25,158	100	27,190	100	27,190		
Sep-73	165	24,062			165	24,062	104	27,357	104	27,357		
Oct-73	154	23,461			154	23,461	98	26,411	98	26,411		
Nov-73	190	27,228			190	27,228	92	23,241	92	23,241		
Dec-73	197	28,349			197	28,349	71	17,456	71	17,456		
Jan-74	243	39,401			243	39,401	105	28,118	105	28,118		
Feb-74	198	32,327			198	32,327	88	23,726	88	23,726		
Mar-74	169	30,525			169	30,525	81	24,209	81	24,209		
Apr-74	157	27,390			157	27,390	116	33,878	116	33,878		
May-74	146	25,016			146	25,016	119	34,009	119	34,009		
Jun-74	156	24,571			156	24,571	95	26,577	95	26,577		
Jul-74	166	22,537			166	22,537	126	31,657	126	31,657		
Aug-74	177	24,162			177	24,162	120	30,665	120	30,665		
Sep-74	166	23,510			166	23,510	119	28,483	119	28,483		
Oct-74	120	18,211			120	18,211	91	24,320	91	24,320		
Nov-74	123	20,341			123	20,341	89	23,953	89	23,953		
Dec-74	136	20,825			136	20,825	68	15,899	68	15,899		
Jan-75	174	28,467			174	28,467	94	24,427	94	24,427		
Feb-75	132	20,541			132	20,541	80	19,271	80	19,271		
Mar-75	136	20,839			136	20,839	134	31,285	134	31,285		
Apr-75	208	38,937			208	38,937	185	53,377	185	53,377		
May-75	153	25,913			153	25,913	109	29,576	109	29,576		
Jun-75	199	30,309			199	30,309	66	18,325	66	18,325		
Jul-75	186	25,660			186	25,660	49	12,436	49	12,436		
Aug-75	199	31,997			199	31,997	93	26,544	93	26,544		
Sep-75	213	34,867			213	34,867	39	11,266	39	11,266		
Oct-75	301	42,939			301	42,939	88	22,285	88	22,285		
Nov-75	271	48,702			271	48,702	124	34,774	124	34,774		
Dec-75	222	42,688			222	42,688	185	53,882	185	53,882		
Jan-76	229	40,756			229	40,756	162	46,018	162	46,018		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun Prim		Ind Prim		Mun & Ind		Mun & Ind		Secondary		Plant	
	TSS	Effluent	TSS	Effluent	TSS	Effluent	TSS	Effluent	TSS	Effluent	TSS	Effluent
	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
Feb-76	286	58,449			286	58,449	136	38,996	136	38,996		
Mar-76	227	47,579			227	47,579	137	44,054	137	44,054		
Apr-76	224	42,476			224	42,476	111	32,579	111	32,579		
May-76	153	27,662			153	27,662	45	12,602	45	12,602		
Jun-76	132	21,024			132	21,024	33	8,607	33	8,607		
Jul-76	160	26,501			160	26,501	95	26,183	95	26,183		
Aug-76	120	18,346			120	18,346	127	35,058	127	35,058		
Sep-76	153	21,807			153	21,807	121	32,040	121	32,040		
Oct-76	192	28,301			192	28,301	99	26,279	99	26,279		
Nov-76	189	30,490			189	30,490	116	30,690	116	30,690		
Dec-76	198	29,150			198	29,150	83	21,890	83	21,890		
Jan-77	193	27,327			193	27,327	50	13,123	50	13,123		
Feb-77	195	30,619			195	30,619	75	21,261	75	21,261		
Mar-77	206	34,291			206	34,291	74	22,003	74	22,003		
Apr-77	141	23,918			141	23,918	92	26,123	92	26,123		
May-77	136	22,507			136	22,507	75	21,669	75	21,669		
Jun-77	139	22,823			139	22,823	79	23,251	79	23,251		
Jul-77	148	23,974			148	23,974	50	13,742	50	13,742		
Aug-77	152	25,833			152	25,833	92	25,794	92	25,794		
Sep-77	129	21,807			129	21,807	92	26,089	92	26,089		
Oct-77	158	25,623			158	25,623	124	33,957	124	33,957		
Nov-77	172	27,488			172	27,488	73	18,727	73	18,727		
Dec-77	146	23,325			146	23,325	91	22,436	91	22,436		
Jan-78	126	18,570			126	18,570	129	28,841	129	28,841		
Feb-78	177	25,419			177	25,419	122	28,567	122	28,567		
Mar-78	182	30,948			182	30,948	125	32,017	125	32,017		
Apr-78	132	23,678			132	23,678	100	27,045	100	27,045		
May-78	156	25,095			156	25,095	80	20,640	80	20,640		
Jun-78	129	23,039			129	23,039	84	20,775	84	20,775		
Jul-78	148	29,685			148	29,685	75	22,270	75	22,270		
Aug-78	189	34,268			189	34,268	90	25,365	90	25,365		
Sep-78	127	25,155			127	25,155	96	28,204	96	28,204		
Oct-78	165	30,952			165	30,952	101	28,791	101	28,791		
Nov-78	120	20,145			120	20,145	91	25,617	91	25,617		
Dec-78	148	23,736			148	23,736	121	29,048	121	29,048		
Jan-79	128	22,327			128	22,327	54	14,096	54	14,096		
Feb-79	187	31,142			187	31,142	139	34,666	139	34,666		
Mar-79	123	25,289			123	25,289	103	31,031	103	31,031		
Apr-79	177	37,072			177	37,072	42	12,480	42	12,480		
May-79	103	21,354			103	21,354	27	8,005	27	8,005		
Jun-79	108	21,644			108	21,644	32	9,921	32	9,921		
Jul-79	122	23,319			122	23,319	37	10,921	37	10,921		
Aug-79	104	19,448			104	19,448	61	18,024	61	18,024		
Sep-79	166	30,204			166	30,204	28	7,948	28	7,948		
Oct-79	140	25,402			140	25,402	32	9,000	32	9,000		
Nov-79	219	38,541			219	38,541	79	19,986	79	19,986		
Dec-79	219	38,625			219	38,625	44	11,692	44	11,692		
Jan-80	144	38,181			144	38,181	129	35,217	129	35,217		
Feb-80	187	32,743			187	32,743	107	27,510	107	27,510		
Mar-80	291	56,307			291	56,307	66	17,173	66	17,173		
Apr-80	174	35,117			174	35,117	87	23,164	87	23,164		
May-80	249	40,505			249	40,505	140	32,364	140	32,364		
Jun-80	168	33,672			168	33,672	83	23,373	83	23,373		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind											
	Mun Prim Effluent	Mun Prim Effluent	Ind Prim Effluent	Ind Prim Effluent	Prim TSS	Prim Effluent	Secondary Effluent	Secondary Effluent	Plant Effluent	Plant Effluent		
	TSS	TSS	TSS	TSS	TSS	TSS	TSS	TSS	TSS	TSS		
	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day		
Jul-80	179	33,704			179	33,704	89	23,005	89	23,005		
Aug-80	166	29,988			166	29,988	32	8,015	32	8,015		
Sep-80	108	16,140	173	15,101	132	31,241	21	5,048	21	5,048		
Oct-80	142	27,769	679	35,847	256	63,616	71	17,691	71	17,691		
Nov-80	159	22,828	311	22,398	210	45,226	74	15,926	74	15,926		
Dec-80	157	26,380	204	14,019	171	40,399	37	8,755	37	8,755		
Jan-81	150	25,307	231	18,222	175	43,529	42	10,643	42	10,643		
Feb-81	146	28,334	223	17,393	168	45,727	104	28,315	104	28,315		
Mar-81	151	27,889	292	23,648	194	51,537	70	18,626	70	18,626		
Apr-81	150	26,341	174	14,078	158	40,419	114	29,138	114	29,138		
May-81	153	26,649	163	13,977	156	40,626	84	22,002	84	22,002		
Jun-81	149	26,669	142	11,508	147	38,177	33	8,707	33	8,707		
Jul-81	153	27,398	132	9,530	147	36,928	38	9,402	38	9,402		
Aug-81	159	28,273	89	6,362	139	34,635	47	11,681	47	11,681		
Sep-81	173	30,940	120	8,946	157	39,886	91	23,038	91	23,038		
Oct-81	217	39,873	160	11,747	201	51,620	50	12,910	50	12,910		
Nov-81	163	29,480	141	9,644	159	39,124	67	17,084	67	17,084		
Dec-81	210	36,389	112	7,649	188	44,038	47	11,080	47	11,080		
Jan-82												
Feb-82												
Mar-82												
Apr-82												
May-82												
Jun-82												
Jul-82												
Aug-82												
Sep-82												
Oct-82												
Nov-82												
Dec-82												
Jan-83	208	47,802		209	47,802	37	8,497	37	8,497			using DEQ Report Eff data when it differs some from the computer spreadsheets
Feb-83	279	62,068		281	62,068	79	17,572	79	17,572			using DEQ Report Eff data when it differs some from the computer spreadsheets
Mar-83	183	39,780		184	39,780	235	50,870	235	50,870			using DEQ Report Eff data when it differs some from the computer spreadsheets
Apr-83	186	43,138		188	43,138	137	32,246	137	32,246			using DEQ Report Eff data when it differs some from the computer spreadsheets
May-83	148	32,874		148	32,874	114	25,930	114	25,930			using DEQ Report Eff data when it differs some from the computer spreadsheets
Jun-83	162	32,935		162	32,935	36	7,495	36	7,495			using DEQ Report Eff data when it differs some from the computer spreadsheets
Jul-83	148	32,810		150	32,810	47	11,104	47	11,104			using DEQ Report Eff data when it differs some from the computer spreadsheets
Aug-83	192	45,027		192	45,027	26	5,804	26	5,804			using DEQ Report Eff data when it differs some from the computer spreadsheets
Sep-83	321	68,573		321	68,573	68	11,518	68	11,518			using DEQ Report Eff data when it differs some from the computer spreadsheets
Oct-83	268	59,996		268	59,996	41	9,364	41	9,364			using DEQ Report Eff data when it differs some from the computer spreadsheets
Nov-83	329	101,438		328	101,438	128	29,594	128	29,594			using DEQ Report Eff data when it differs some from the computer spreadsheets
Dec-83	374	117,891		374	117,891	55	17,461	55	17,461			using DEQ Report Eff data when it differs some from the computer spreadsheets
Jan-84	400	127,031		400	127,031	140	35,923	140	35,923			using DEQ Report Eff data when it differs some from the computer spreadsheets
Feb-84	374	124,455		374	124,455	167	44,280	167	44,280			using DEQ Report Eff data when it differs some from the computer spreadsheets
Mar-84	381	98,171		381	98,171	88	23,383	88	23,383			using DEQ Report Eff data when it differs some from the computer spreadsheets
Apr-84	366	88,700		366	88,700	165	27,081	165	27,081			using DEQ Report Eff data when it differs some from the computer spreadsheets
May-84	310	76,570		310	76,570	196	48,107	196	48,107			using DEQ Report Eff data when it differs some from the computer spreadsheets
Jun-84	259	66,614		259	66,614	53	14,131	53	14,131			using DEQ Report Eff data when it differs some from the computer spreadsheets
Jul-84	353	84,243		353	84,243	26	6,113	26	6,113			using DEQ Report Eff data when it differs some from the computer spreadsheets
Aug-84	224	55,922		224	55,922	12	3,083	12	3,083			using DEQ Report Eff data when it differs some from the computer spreadsheets
Sep-84	244	61,673		244	61,673	39	10,294	39	10,294			using DEQ Report Eff data when it differs some from the computer spreadsheets
Oct-84	156	40,559		156	40,559	185	48,504	185	48,504			using DEQ Report Eff data when it differs some from the computer spreadsheets
Nov-84	147	36,492		147	36,492	41	10,444	41	10,444			using DEQ Report Eff data when it differs some from the computer spreadsheets

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun Prim		Ind Prim		Mun & Ind		Mun & Ind		Secondary Effluent TSS <i>mg/L</i>	Secondary Effluent TSS <i>lbs/day</i>	Plant Effluent TSS <i>mg/L</i>	Plant Effluent TSS <i>lbs/day</i>
	TSS	Effluent	TSS	Effluent	Prim	Prim	Secondary	Secondary				
	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>	<i>lbs/day</i>	<i>mg/L</i>				
Dec-84	160	39,739			160	39,739	113	31,072	113	31,072		
Jan-85	149	40,477			149	40,477	154	41,977	154	41,977		
Feb-85	181	53,394			181	53,394	178	58,693	178	58,693		
Mar-85	179	59,918			179	59,918	97	28,792	97	28,792		
Apr-85	153	42,447			153	42,447	28	7,972	28	7,972		
May-85	156	37,086			156	37,086	33	8,244	33	8,244		
Jun-85	164	38,520			164	38,520	233	55,855	233	55,855		
Jul-85	258	49,666	59	2,022	223	51,688	21	4,707	21	4,707		
Aug-85	390	74,315	26	952	334	75,267	11	2,522	11	2,522		
Sep-85	251	47,772	41	1,548	214	49,320	4	1,024	4	1,024		
Oct-85	152	30,965	47	1,630	138	32,595	23	5,609	23	5,609		
Nov-85	141	33,210	41	1,384	130	34,594	28	6,632	28	6,632		
Dec-85	168	35,627	55	1,812	152	37,439	15	3,658	15	3,658		
Jan-86	131	28,496	53	1,835	121	30,331	14	3,417	14	3,411		
Feb-86	124	27,132	67	2,280	117	29,412	10	2,591	10	2,586		
Mar-86	116	20,604	50	1,948	105	22,552	18	4,059	18	4,061		
Apr-86	121	20,610	42	1,521	109	22,131	6	1,204	6	1,202		
May-86	109	18,726	43	1,502	99	20,228	4	872	4	869		
Jun-86	90	16,746	42	1,419	83	18,165	7	1,478	7	1,475		
Jul-86	94	17,347	46	1,865	86	19,212	6	1,336	6	1,334		
Aug-86	93	15,680	110	4,084	98	19,764	4	777	4	775		
Sep-86	108	18,953	29	1,015	95	19,968	7	1,623	4	1,620		
Oct-86	94	20,259	33	1,182	86	21,441	13	3,133	13	3,127		
Nov-86	93	15,943	35	1,148	85	17,091	9	1,791	9	1,788		
Dec-86	102	16,616	45	1,475	92	18,091	8	1,614	8	1,611		
Jan-87	128	21,593	53	1,825	116	23,418	26	5,191	26	5,180		
Feb-87	113	18,799	38	1,250	100	20,049	70	14,180	70	14,148		
Mar-87	110	18,407	39	1,544	97	19,951	28	5,639	28	5,629		
Apr-87	107	17,896	37	1,318	96	19,214	95	19,215	24	4,876		
May-87	126	19,272	40	1,245	110	20,517	22	4,167	22	4,159		
Jun-87	131	19,457	31	1,172	111	20,629	14	2,697	14	2,697		
Jul-87	124	16,737	75	2,168	111	18,905	36	6,168	13	2,196		
Aug-87	103	18,897	27	1,058	90	19,955	34	7,577	8	1,755		
Sep-87	76	13,044	40	1,594	69	14,638	94	19,998	27	5,653		
Oct-87	108	17,461	143	5,788	116	23,249	101	20,143	46	9,132		
Nov-87	116	18,627	299	13,167	167	31,794	128	25,171	63	12,409		
Dec-87	109	17,518	207	8,921	131	26,439	98	19,675	60	12,121		
Jan-88	169	28,459	107	4,420	154	32,879	126	26,851	91	19,404		
Feb-88	139	24,883	68	2,663	125	27,546	137	29,977	87	19,139		
Mar-88	80	14,530	65	2,892	76	17,422	45	10,196	34	7,724		
Apr-88	84	17,434	96	3,867	86	21,301	48	11,805	36	8,964		
May-88	92	17,185	281	11,473	127	28,658	61	14,040	50	11,478		
Jun-88	93	17,058	56	2,497	85	19,555	65	14,985	38	8,757		
Jul-88	89	16,996	52	2,335	82	19,331	40	9,505	19	4,445		
Aug-88	101	19,115	43	1,878	91	20,993	32	7,498	20	4,636		
Sep-88	97	18,321	66	2,896	92	21,217	22	4,921	31	6,999		
Oct-88	95	18,755	105	4,211	96	22,966	31	7,582	41	9,843		
Nov-88	88	18,164	87	3,907	89	22,071	24	6,060	29	7,176		
Dec-88	81	15,280	98	4,497	85	19,777	19	4,324	29	6,720		
Jan-89	104	19,530	86	3,879	101	23,409	35	8,178	36	8,467		
Feb-89	104	19,924	107	5,060	104	24,984	73	17,228	73	17,228		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind											
	Mun Prim	Mun Prim	Ind Prim	Ind Prim	Prim	Prim	Secondary	Secondary	Plant	Plant		
	Effluent	Effluent	Effluent	Effluent	TSS	TSS	Effluent	Effluent	TSS	TSS		
	TSS	TSS	TSS	TSS	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day
Mar-89	110	22,452	101	4592	109	27,044	40	9766	25	6,099		
Apr-89	118	23,954	75	3339	110	27,292	41	11776	39	9,593		
May-89	127	25,040	80	3613	118	28,654	20	5691	7	1,764		
Jun-89	98	23,999	82	4380	96	28,379	26	8564	5	1,459		
Jul-89	105	22,318	65	2654	99	24,972	30	8739	8	1,874		
Aug-89	105	22,779	54	2366	96	25,144	29	8802	11	2,834		
Sep-89	91	20,482	49	2143	84	22,625	35	10751	11	2,974		
Oct-89	118	24,507	59	2598	108	27,105	39	11467	8	2,017		
Nov-89	93	19,047	78	3224	90	22,271	57	16820	15	3,757		
Dec-89	121	23,631	86	3795	116	27,426	62	17040	16	3,763		
Jan-90	111	23,503	82	3534	106	27,037	73	21517	21	5,370		
Feb-90	121	24,350	104	4633	118	28,983	56	15910	16	3,998		
Mar-90	132	28,170	95	4391	126	32,561	45	13735	12	3,044		
Apr-90	131	28,645	95	4244	125	32,889	61	18746	15	4,077		
May-90	110	22,326	90	4289	107	26,616	58	16991	13	3,131		
Jun-90	87	17,587	68	2856	84	20,444	43	12198	10	2,338		
Jul-90	89	17,861	72	3417	86	21,279	20	5923	5	1,159		
Aug-90	86	18,054	48	2360	79	20,414	30	9178	5	1,367		
Sep-90	96	20,714	74	3392	93	24,106	51	16072	13	3,404		
Oct-90	113	22,928	78	3272	106	26,201	41	11819	11	2,585		
Nov-90	106	22,138	90	4188	102	26,326	39	11282	15	3,747		
Dec-90	107	22,305	98	4673	105	26,977	42	12365	13	3,267		
Jan-91	93	20,500	91	4339	94	24,839	26	7816	6	1,598		
Feb-91	104	20,528	82	3215	101	23,743	28	7577	6	1,347		
Mar-91	95	19,167	81	3177	93	22,344	47	12973	11	2,504		
Apr-91	102	22,730	63	2597	97	25,328	33	10136	11	2,993		
May-91	99	22,728	53	2058	93	24,786	41	12765	13	3,368		
Jun-91	84	18,203	48	2288	78	20,492	42	12950	10	2,748		
Jul-91	74	15,747	48	2125	69	17,872	40	11981	10	2,513		
Aug-91	84	17,470	44	2028	77	19,498	31	9227	6	1,479		
Sep-91	72	13,902	44	2154	66	16,056	38	10944	5	1,296		
Oct-91	85	17,442	56	2776	81	20,218	32	9619	5	1,351		
Nov-91	76	15,952	82	4548	77	20,500	40	12535	6	1,482		
Dec-91	92	20,027	75	3868	90	23,895	38	11877	7	1,731		
Jan-92	128	26,338	86	4169	120	30,507	56	17174	18	4,443		
Feb-92	93	19,378	52	2612	86	21,990	45	14065	10	2,614		
Mar-92	105	21,730	72	3585	99	25,315	32	9506	6	1,590		
Apr-92	101	21,076	47	2351	91	23,427	50	14854	12	3,179		
May-92	94	18,787	37	1844	84	20,631	54	15643	12	2,983		
Jun-92	92	18,432	32	1621	81	20,053	55	15957	8	2,019		
Jul-92	104	20,897	42	1896	92	22,793	54	15559	12	2,966		
Aug-92	127	25,774	39	2229	108	28,002	49	14374	9	2,268		
Sep-92	143	31,026	38	2015	125	33,041	54	16208	13	3,431		
Oct-92	115	23,535	49	2683	102	26,217	43	12956	9	2,268		
Nov-92	92	19,253	47	3039	82	22,293	52	16100	15	4,011		
Dec-92	88	17,453	46	2916	79	20,368	58	17127	16	4,141		
Jan-93	82	17,705	55	3581	76	21,285	35	11153	9	2,418		
Feb-93	90	17,701	57	3922	82	21,622	36	10851	9	2,335		
Mar-93	80	16,245	41	2728	71	18,973	35	10778	9	2,299		
Apr-93	111	25,107	48	2783	99	27,889	45	14399	12	3,277		
May-93	117	25,319	48	2219	104	27,538	49	14837	12	3,126		
Jun-93	119	24,856	37	2207	100	27,062	58	18207	11	3,085		
Jul-93	107	21,868	32	2016	90	23,884	66	20674	22	5,801		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun Prim		Ind Prim		Mun & Ind		Mun & Ind		Secondary Effluent	Secondary Effluent	Plant Effluent	Plant Effluent
	TSS	TSS	TSS	TSS	Prim	Prim	TSS	TSS				
	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day				
Aug-93	112	23,224	30	1707	95	24,931	33	10545	8	2,129		
Sep-93	114	24,168	35	2064	96	26,232	45	15065	13	3,606		
Oct-93	93	19,930	42	2439	82	22,369	54	18081	20	5,543		
Nov-93	99	20,044	40	2296	87	22,340	49	15322	12	3,116		
Dec-93	184	37,276	48	2803	156	40,079	53	16940	18	4,578		
Jan-94	101	21,013	45	2457	89	23,470	54	17321	18	4,698		
Feb-94	75	16,271	42	2413	68	18,684	41	13378	14	3,874		
Mar-94	101	22,227	45	2732	90	24,959	40	13542	11	3,037		
Apr-94	115	25,162	32	2014	98	27,175	33	10978	8	2,212		
May-94	98	20,236	29	1849	82	22,084	29	9612	10	2,623		
Jun-94	104	23,090	35	2272	88	25,362	28	9699	8	2,397		
Jul-94	92	19,925	32	2058	78	21,984	28	9751	8	2,185		
Aug-94	114	25,385	26	1735	94	27,120	35	12261	7	1,854		
Sep-94	89	18,788	27	1833	75	20,621	32	10544	6	1,710		
Oct-94	76	15,280	38	2083	66	17,363	41	13221	5	1,402		
Nov-94	80	16,401	29	1768	68	18,169	38	11992	5	1,385		
Dec-94	77	15,696	36	2064	68	17,759	47	14977	6	1,573		
Jan-95	81	16,609	34	2062	71	18,671	45	14250	11	2,862		
Feb-95	102	19,733	49	2960	90	22,693	42	12837	9	2,278		
Mar-95	103	20,602	33	1971	87	22,573	38	11757	13	3,325		
Apr-95	88	17,108	37	2043	76	19,151	32	9578	14	3,534		
May-95	62	12,424	29	1719	55	14,143	35	10962	10	2,596		
Jun-95	70	13,987	28	1667	61	15,654	31	9704	9	2,335		
Jul-95	88	17,225	24	1420	71	18,645	26	8325	4	1,137		
Aug-95	109	23,428	32	2219	90	25,647	29	9724	6	1,621		
Sep-95	103	20,640	30	2004	85	22,644	33	10671	7	1,750		
Oct-95	112	22,395	40	2449	95	24,844	38	11884	8	2,181		
Nov-95	117	24,235	55	3296	104	27,531	44	14456	13	3,415		
Dec-95	107	21,145	42	2418	94	23,564	46	14240	18	4,559		
Jan-96	94	18,329	64	4377	86	22,706	36	11667	11	2,850		
Feb-96	97	18,783	68	4495	91	23,278	37	11610	13	3,229		
Mar-96	103	20,121	46	3102	90	23,223	33	10376	15	3,794		
Apr-96	125	24,297	44	2973	105	27,270	35	11348	14	3,586		
May-96	106	21,326	41	2434	92	23,759	35	11421	12	3,100		
Jun-96	95	19,531	38	2513	82	22,044	34	11122	9	2,524		
Jul-96	106	20,513	43	2903	90	23,417	39	12784	14	3,658		
Aug-96	86	17,482	46	3546	76	21,028	33	11434	10	2,848		
Sep-96	81	15,919	57	4465	74	20,384	39	12402	11	2,908		
Oct-96	71	14,477	55	4460	66	18,936	39	13599	13	3,587		
Nov-96	83	19,293	66	3613	82	22,906	41	14183	17	4,689		
Dec-96	86	20,048	51	1810	82	21,859	29	9557	12	3,072		
Jan-97	87	21,494	49	1492	84	22,986	31	10331	14	3,980		
Feb-97	87	23,149	49	1416	84	24,565	26	9505	15	4,527		
Mar-97	91	24,732	49	661	89	25,393	21	7487	11	3,197		
Apr-97	140	31,303	66	3501	126	34,804	24	8002	8	2,085		
May-97	102	22,799	47	2041	93	24,840	26	8751	10	2,729		
Jun-97	99	23,390	55	2224	93	25,614	23	7939	8	2,208		
Jul-97	78	15,539	49	3235	71	18,774	21	6961	9	2,344		
Aug-97	88	18,484	70	3937	84	22,421	19	6374	5	1,383		
Sep-97	83	16,844	52	3760	75	20,604	23	7938	8	2,283		
Oct-97	106	25,045	51	1252	100	26,297	20	6549	8	2,058		
Nov-97	94	17,809	58	3973	84	21,782	20	6526	7	1,858		
Dec-97	87	16,474	64	4664	81	21,139	14	4767	4	963		

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun & Ind											
	Mun Prim	Mun Prim	Ind Prim	Ind Prim	Prim	Prim	Secondary	Secondary	Plant	Plant		
	Effluent	TSS	Effluent	TSS	Effluent	TSS	Effluent	TSS	Effluent	TSS		
	<i>mg/L</i>		<i>lbs/day</i>		<i>mg/L</i>		<i>lbs/day</i>		<i>mg/L</i>		<i>lbs/day</i>	
Jan-98	77	16,181	101	7515	83	23,696	20	7201	8	2,270		
Feb-98	83	16,790	77	5852	81	22,642	24	8427	9	2,625		
Mar-98	83	17,586	76	5646	81	23,232	21	7233	9	2,486		
Apr-98	85	18,719	68	4600	81	23,319	29	10069	11	3,096		
May-98	111	22,759	52	3839	95	26,599	20	6905	7	1,945		
Jun-98	110	23,329	55	3058	99	26,387	23	7724	11	2,904		
Jul-98	136	26,813	70	4137	121	30,950	20	6458	5	1,390		
Aug-98	90	17,623	49	3560	79	21,182	21	7263	6	1,719		
Sep-98	77	15,058	50	3542	70	18,600	22	7276	8	2,201		
Oct-98	87	17,163	61	4198	80	21,361	20	6788	7	1,948		
Nov-98	110	22,085	61	2955	101	25,040	22	6959	10	2,470		
Dec-98	208	38,634	72	4445	174	43,079	27	8186	15	3,780		
Jan-99	124	28,387	76	4,966	126	33,353	22	6,896	9	2,298		
Feb-99	129	30,682	72	4,381	132	35,063	34	10,819	20	5,264		
Mar-99	112	25,739	65	4,289	114	30,028	22	7,013	9	2,409		
Apr-99	111	27,159	62	4,217	113	31,376	14	4,723	5	1,454		
May-99	109	25,931	54	3,368	110	29,299	17	5,535	6	1,725		
Jun-99	96	22,754	63	4,407	99	27,160	21	6,459	13	3,281		
Jul-99	105	26,088	150	8,918	127	35,006	12	4,066	3	882		
Aug-99	113	26,111	75	5,684	116	31,795	16	5,112	6	1,759		
Sep-99	125	28,402	88	6,155	128	34,557	21	6,868	8	2,089		
Oct-99	107	24,607	72	4,043	110	28,650	23	7,295	8	2,051		
Nov-99	104	22,792	80	5,089	111	27,881	20	6,145	6	1,601		
Dec-99	116	25,839	135	8,115	134	33,953	21	6,577	6	1,623		
Jan-00	111	24,607	101	6,831	120	31,438	26	8,265	9	2,271		
Feb-00	116	26,319	102	6,683	124	33,002	25	8,173	12	3,194		
Mar-00	101	23,337	97	6,062	109	29,400	24	7,880	11	3,087		
Apr-00	114	24,883	93	5,852	120	30,735	25	7,538	13	3,414		
May-00	126	28,909	68	4,167	125	33,076	22	7,354	13	3,707		
Jun-00	124	27,287	69	4,701	123	31,988	22	6,858	13	3,414		
Jul-00	92	19,856	75	4,775	98	24,631	18	5,374	9	2,229		
Aug-00	130	29,836	94	5,962	136	35,798	18	5,574	8	2,152		
Sep-00	115	26,984	97	6,894	124	33,878	16	5,070	10	2,690		
Oct-00	142	33,723	105	6,429	152	40,152	23	7,435	10	2,503		
Nov-00	139	32,219	102	6,018	146	38,237	22	7,024	11	2,966		
Dec-00	173	39,906	107	6,163	183	46,069	23	6,970	10	2,539		
Jan-01	114	28,960	86	248	128	29,208	27	7,683	15	3,503		
Feb-01	125	34,527	0	135	34,527	18	5,314	11	2,787			
Mar-01	123	33,026	0	137	33,026	18	5,295	11	2,627			
Apr-01	146	37,628	0	161	37,628	18	5,105	9	1,999			
May-01	124	33,947	0	136	33,947	20	5,932	10	2,397			
Jun-01	141	36,636	0	157	36,636	24	6,946	8	1,775			
Jul-01	146	34,644	0	163	34,644	19	4,765	6	1,354			
Aug-01	137	35,096	0	153	35,096	16	4,524	5	1,196			
Sep-01	120	30,674	0	133	30,674	19	5,219	6	1,496			
Oct-01	119	33,229	0	131	33,229	21	6,385	5	1,299			
Nov-01	105	29,122	0	114	29,122	24	7,220	7	1,944			
Dec-01	107	26,470	0	119	26,470	21	5,718	7	1,480			
Jan-02	104	27,012	0	114	27,012	27	7,624	7	1,691			
Feb-02	96	25,680	0	105	25,680	24	7,036	7	1,604			
Mar-02	112	31,665	0	124	31,665	22	6,769	5	1,198			

Kalamazoo Water Reclamation Plant Removal/Effluent Data February 1955 - March 2003

	Mun Prim		Mun Pnm		Ind Prim		Ind Pnm		Mun & Ind		Mun & Ind		Plant Effluent TSS <i>mg/L</i>	Plant Effluent TSS <i>lbs/day</i>
	TSS	Effluent	TSS	Effluent	TSS	Effluent	TSS	Effluent	Secondary	Secondary	Plant	Effluent		
	<i>mg/L</i>	<i>lbs/day</i>	Effluent	TSS										
Apr-02	127	33,600	0	137	33,600	20	5,703	4						
May-02	132	33,508	0	139	33,508	18	4,845	5						
Jun-02	142	34,787	0	149	34,787	16	4,210	6						
Jul-02	119	28,304	0	124	28,304	16	4,022	5						
Aug-02	142	33,791	0	148	33,791	12	3,166	3						
Sep-02	163	37,998	0	171	37,998	11	2,784	2						
Oct-02	178	41,525	0	185	41,525	13	3,371	2						
Nov-02	151	36,598	0	157	36,598	20	5,111	9						
Dec-02	164	39,878	0	171	39,878	25	6,822	1						
Jan-03	175	42,267	0	182	42,267	19	4,987	4						
Feb-03	174	43,277	0	181	43,277	21	5,630	4						
Mar-03	182	42,656	0	189	42,656	14	3,719	2						

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

Date	Total	PCB Arochloris						Comments
		1016	1221	1232	1242	1248	1254	
10/22/85-10/23/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
10/27/85-10/28/85	0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	0 1	<0 1
11/7/85-11/8/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
11/15/85-11/16/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
11/20/85-11/21/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
11/25/85-11/26/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
1/23/87	<0 04 ug/L		<0 04		<0 02		<0 02	<0 02
1/28/87	<0 04 ug/L		<0 04		<0 02		<0 02	<0 02
2/24/87	<0 02 ug/L		<0 01		<0 01		<0 02	<0 01
2/26/87	<0 03 ug/L		<0 01		<0 03		<0 02	<0 01
3/10/87	<0 05 ug/L		<0 02		<0 05		<0 02	<0 02
3/23/87	<0 06 ug/L		<0 06		<0 01		<0 01	0 03 *
4/8/87	<0 04 ug/L		<0 04		<0 02		<0 03	<0 03
4/22/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
5/13/1987	<0 02 ug/L		<0 02		<0 01		<0 01	<0 02
5/19/1987	<0 02 ug/L		<0 01		<0 01		<0 01	<0 02
6/10/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
6/24/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
7/8/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
7/22/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
8/13/87	<0 01 ug/L		<0 01		<0 01		<0 003	<0 006
8/20/87	<0 02 ug/L		<0 02		<0 02		<0 005	<0 008
9/9/87	0 06 ug/L		<0 01		<0 01		<0 03	0 06
9/25/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
10/8/87	<0 01 ug/L		<0 01		<0 01		<0 01	<0 01
10/20/87	<0 08 ug/L		<0 08		<0 02		<0 03	<0 02
11/12/87	<0 03 ug/L		<0 03		<0 03		<0 02	<0 01
11/18/87	<0 04 ug/L		<0 04		<0 02		<0 02	<0 01
12/9/87	<0 02 ug/L		<0 01		<0 01		<0 01	<0 02
12/14/87	<0 02 ug/L		<0 01		<0 01		<0 01	<0 02
4/5/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
5/3/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
5/19/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
6/6/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
6/16/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
7/7/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
7/19/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
8/4/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
8/30/88	<1 ug/L	<1	<1	<1	<1	<1	<1	<1
11/1/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
11/21/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
12/1/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
12/15/88	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
1/3/89	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
1/17/89	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
2/1/89	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
2/15/89	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
11/1/89	<0 0001 mg/L							
11/17/89	<0 0001 mg/L							
12/7/89	<0 0001 mg/L							
12/20/89	<0 0001 mg/L							
12/28/89	<0 0001 mg/L							

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

Date	Total	PCB Arochlor						Comments
		1016	1221	1232	1242	1248	1254	
1/4/90	<0 0001 mg/L							
1/12/90	<0 0001 mg/L							
2/8/90	<0 0001 mg/L							
2/13/90	<0 0001 mg/L							
3/1/90	<0 0001 mg/L							
3/6/90	<0 0001 mg/L							
4/2/90	<0 0001 mg/L							
4/16/90	<0 0001 mg/L							
5/7/90	<0 0001 mg/L							
5/15/90	<0 0001 mg/L							
6/1/90	<0 0001 mg/L							
6/5/90	<0 0001 mg/L							
7/5/90	<0 0001 mg/L							
7/10/90	<0 0001 mg/L							
8/3/90	<0 0001 mg/L							
8/7/90	<0 0001 mg/L							
9/7/90	<0 0001 mg/L							
9/13/90	<0 0001 mg/L							
10/2/90	<0 0001 mg/L							
10/11/90	<0 0001 mg/L							
11/1/90	<0 0001 mg/L							
11/15/90	<0 0001 mg/L							
12/6/90	0.028 mg/L	*	0.028	*				* Arochlor analyzed
12/14/90	0.0033 mg/L		*			0.0033		* Arochlor analyzed
1/4/91	<0 0001 mg/L							
1/8/91	<0 1 ug/L							Annual PCB/Hg report data
1/14/91	<0 0001 mg/L							
1/25/91	<0 1 ug/L							Annual PCB/Hg report data
2/1/91	<0 0001 mg/L							
2/12/91	<0 0001 mg/L							
3/6/91	<0 0001 mg/L							
3/14/91	<0 0001 mg/L							
4/5/91	<0 0001 mg/L							
4/09/91	<0 0001 mg/L							
5/9/91	<0 0001 mg/L							
5/15/91	<0 0001 mg/L							
6/5/91	<0 0001 mg/L							
6/19/91	<0 0001 mg/L							
7/5/91	<0 0001 mg/L							
7/15/91	<0 0001 mg/L							
8/15/91	<0 0001 mg/L							
8/19/91	<0 0001 mg/L							
9/3/91	<0 0001 mg/L							
9/18/91	<0 001 mg/L							
10/10/91	<0 0001 mg/L							
10/14/91	<0 0001 mg/L							
11/1/91	<0 001 mg/L							
11/13/91	<0 0001 mg/L							
12/9/91	<0 0001 mg/L							
12/11/91	<0 0002 mg/L							
1/3/92	<0 0001 mg/L							
1/7/92	<0 0001 mg/L							

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

Date	Total	PCB Arochlor						Comments
		1016	1221	1232	1242	1248	1254	
2/6/92	<0 0002 mg/L							
2/11/92	<0 0002 mg/L							
3/4/92	<0 0001 mg/L							
3/10/92	<0 0001 mg/L							
4/1/92	<0 0001 mg/L							
4/7/92	<0 0002 mg/L							
5/4/92	<0 0001 mg/L							
5/11/92	<0 0001 mg/L							
6/3/92 7 30am	<0 0001 mg/L							
6/3/92 3 00pm	<0 0001 mg/L							
6/10/92	<0 0001 mg/L							
7/1/92	<0 0001 mg/L							
7/9/92	<0 0001 mg/L							
8/3/92	<0 0001 mg/L							
8/6/92	<0 0001 mg/L							
9/2/92	<0 0001 mg/L							
9/14/92	<0 0001 mg/L							
10/5/92	<0 0001 mg/L							
10/8/92	<0 0001 mg/L							
11/5/92	<0 0001 mg/L							
11/09/92	<0 0001 mg/L							
12/2/92	<0 0001 mg/L							
12/4/92	<0 0001 mg/L							
1/8/93	0.0013 mg/L							
1/13/93	<0 0001 mg/L							
2/3/93	<0 0001 mg/L							
2/8/93	<0 0001 mg/L							
3/3/93	<0 0001 mg/L							
3/11/93	<0 0001 mg/L							
4/8/93	<0 0001 mg/L							
4/12/93	<0 0001 mg/L							
5/5/93	<0 0001 mg/L							
5/12/93	<0 0001 mg/L							
6/7/893	<0 0001 mg/L							
6/14/93	<0 0001 mg/L							
7/9/93	<0 0001 mg/L							
7/12/93	<0 0001 mg/L							
8/5/93	<0 0001 mg/L							
8/9/93	<0 0001 mg/L							
9/9/93	<0 0001 mg/L							
9/13/93	<0 0001 mg/L							
10/6/93	<0 0001 mg/L							
10/13/93	<0 0001 mg/L							
11/5/93	<0 0001 mg/L							
11/8/93	<0 0001 mg/L							
12/9/93	<0 0001 mg/L							
12/13/93	<0 0001 mg/L							
1/6/94	<0 0001 mg/L							
1/10/94	<0 0001 mg/L							
2/7/94	<0 0001 mg/L							
2/10/94	<0 0001 mg/L							
3/3/94	<0 0001 mg/L							

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
3/7/94	<0.001 mg/L								
4/6/94	<0.0001 mg/L								
4/7/94	<0.0001 mg/L								
5/9/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
5/10/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
6/9/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
6/10/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/11/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/13/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
8/4/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
8/10/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
9/6/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
9/8/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
10/4/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
10/6/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/3/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/7/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
12/5/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
12/15/94	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
1/5/95	<0.1 ug/L								Annual PCB/Hg report data
1/11/95	<0.1 ug/L								Annual PCB/Hg report data
2/1/95	<0.1 ug/L								Annual PCB/Hg report data
2/13/95	<0.1 ug/L								Annual PCB/Hg report data
3/2/95	<0.1 ug/L								Annual PCB/Hg report data
3/13/95	<0.1 ug/L								Annual PCB/Hg report data
4/6/95	<0.1 ug/L								Annual PCB/Hg report data
4/13/95	<0.1 ug/L								Annual PCB/Hg report data
5/4/95	<0.1 ug/L								Annual PCB/Hg report data
5/15/95	<0.1 ug/L								Annual PCB/Hg report data
6/1/95	<0.1 ug/L								Annual PCB/Hg report data
6/14/95	<0.1 ug/L								Annual PCB/Hg report data
7/6/95	<0.1 ug/L								Annual PCB/Hg report data
8/9/95	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
8/15/95	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
9/1/95	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
9/8/95	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
10/3/95	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
10/5/95	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/3/95	<0.1 ug/L								Annual PCB/Hg report data
11/8/95	<0.1 ug/L								Annual PCB/Hg report data
12/5/95	<0.1 ug/L								Annual PCB/Hg report data
12/7/95	<0.1 ug/L								Annual PCB/Hg report data
1/4/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
1/5/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
2/7/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
2/9/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
3/5/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
3/7/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
4/3/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
4/5/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
5/7/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
5/9/96	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

2003 EPA-PCB Data Request

Tertiary Effluent-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
9/24/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/01/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/08/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/15/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/22/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/29/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/05/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/12/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/19/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/26/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/03/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/10/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/17/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/24/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/18/02	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Municipal Primary Influent-KWRP

Date	Total	PCB Aroclors								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
Week #1 2/1985	<188.6 ug/L	<15.0	<15.9	<22.4	<17.7	<38.6	<67.3	<188.6		
Week #2 2/1985	<104.1 ug/L	<16.0	<16.7	<21.2	<18.9	<29.5	<42.1	<104.1		
10/22/85-10/23/85	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
10/27/85-10/28/85	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/7/85-11/8/85	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/15/85-11/16/85	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/20/85-11/21/85	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
11/25/85-11/26/85	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
3/10/87	<0.1 ug/L		<0.1		<0.1		<0.05	<0.05		
9/28/90	<0.1 ug/L									
10/11/90	<0.1 ug/L									
10/17/90	<0.1 ug/L									
11/1/90	<0.0001 mg/L									
11/14/90	3.3 ug/L	<1.0	<1.0	<1.0	3.3	<1.0	<1.0	<1.0	<1	
12/5/90	<0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
12/14/90	0.11 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1	
1/4/91	4.7 ug/L	4.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
1/9/91	<1.0 ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
2/1/91	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
2/11/91	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
3/6/91	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
3/13/91	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
4/5/91	<0.1 ug/L									
4/12/91	<0.1 ug/L									
5/9/91	<0.0001 mg/L									
5/15/91	<0.0001 mg/L									
6/5/91	<0.0001 mg/L									
6/19/91	<0.0001 mg/L									reported on lab sheet as mg/kg
7/5/91	<0.0001 mg/L									
7/15/91	<0.0001 mg/L									
8/15/91	<0.0001 mg/L									
8/19/91	<0.0001 mg/L									
9/3/91	<0.0001 mg/L									
9/18/91	<0.01 mg/L									
10/10/91	<0.0001 mg/L									
10/14/91	<0.0001 mg/L									
11/1/91	<0.001 mg/L									
11/13/91	<0.01 mg/L									
12/9/91	<0.0001 mg/L									
12/11/91	<0.0002 mg/L									
1/3/92	<0.01 mg/L									
1/7/92	<0.001 mg/L									
2/6/92	<0.02 mg/L									
2/11/92	<0.02 mg/L									
3/4/92	<0.001 mg/L									
3/10/92	<0.01 mg/L									
4/1/92	<0.004 mg/L									
4/7/92	<0.002 mg/L									
5/4/92	<0.001 mg/L									
5/11/92	<0.0001 mg/L									
6/3/92	<0.0001 mg/L									
6/10/92	<0.001 mg/L									

2003 EPA-PCB Data Request

Municipal Primary Influent-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
7/1/92	<0.0001 mg/L								
7/9/92	<0.001 mg/L								
8/3/92	<0.0001 mg/L								
8/6/92	<0.001 mg/L								
9/2/92	<0.0001 mg/L								
9/14/92	<0.0001 mg/L								
10/5/92	<0.0001 mg/L								
10/8/92	<0.0001 mg/L								
11/5/92	<0.001 mg/L								
11/9/92	<0.0001 mg/L								
12/2/92	<0.0001 mg/L								
12/4/92	<0.0001 mg/L								
1/8/93	<0.0001 mg/L								
1/13/93	<0.0001 mg/L								
2/3/93	<0.0001 mg/L								
2/8/93	<0.0001 mg/L								
3/3/93	<0.0001 mg/L								
3/11/93	<0.001 mg/L								
4/8/93	<0.0001 mg/L								
4/12/93	<0.0001 mg/L								
5/5/93	<0.001 mg/L								
5/12/93	<0.001 mg/L								
6/7/93	<0.0005 mg/L								
6/14/93	<0.0001 mg/L								
7/9/93	<0.0001 mg/L								
7/12/93	<0.0001 mg/L								
8/5/93	<0.001 mg/L								
8/9/93	<0.001 mg/L								
9/9/93	<0.0001 mg/L								
9/13/93	<0.0001 mg/L								
10/6/93	<0.0001 mg/L								
10/13/93	<0.0001 mg/L								
11/5/93	<0.0001 mg/L								
11/8/93	<0.0001 mg/L								
12/9/93	<0.0001 mg/L								
12/13/93	<0.0001 mg/L								
1/6/94	<0.0001 mg/L								
1/10/94	<0.0001 mg/L								
2/7/94	<0.0001 mg/L								
2/10/94	<0.0001 mg/L								
3/3/94	<0.0001 mg/L								
3/7/94	<0.0001 mg/L								
4/6/94	<0.0001 mg/L								
4/7/94	<0.0001 mg/L								
5/9/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
5/10/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
6/9/94	0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	
6/10/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/11/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/13/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
8/4/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
8/10/94	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	

2003 EPA-PCB Data Request

Municipal Primary Influent-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
9/6/94	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/8/94	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/4/94	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/6/94	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/3/94	0.2 ug/l	<0 1	<0 1	<0 1	0.2	<0 1	<0 1	<0 1	
11/7/94	0.3 ug/l	<0 1	<0 1	<0 1	0.3	<0 1	<0 1	<0 1	
12/5/94	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/15/94	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/5/95	<0 1 ug/l								Annual PCB/Hg report data
1/11/95	<0 1 ug/l								Annual PCB/Hg report data
2/1/95	<0 1 ug/l								Annual PCB/Hg report data
2/13/95	<0 1 ug/l								Annual PCB/Hg report data
3/2/95	<0 1 ug/l								Annual PCB/Hg report data
3/13/95	<0 1 ug/l								Annual PCB/Hg report data
4/6/1995	<0 1 ug/l								Annual PCB/Hg report data
4/13/95	<0 1 ug/l								Annual PCB/Hg report data
5/4/1995	<0 1 ug/l								Annual PCB/Hg report data
5/15/95	0.1ug/l						0 1		Annual PCB/Hg report data
6/1/95	<0 1 ug/l								Annual PCB/Hg report data
6/14/95	<0 1 ug/l								Annual PCB/Hg report data
7/6/95	<0 1 ug/l								Annual PCB/Hg report data
8/9/95	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/15/95	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/1/95	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/8/95	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/3/95	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/5/95	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/3/95	<0 1 ug/l								Annual PCB/Hg report data
11/8/95	<0 1 ug/l								Annual PCB/Hg report data
12/5/95	<0 1 ug/l								Annual PCB/Hg report data
12/7/95	<0 1 ug/l								Annual PCB/Hg report data
1/4/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/5/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/7/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/9/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/5/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/7/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/3/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/5/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/7/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/9/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/4/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/6/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/9/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/11/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/6/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/8/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/5/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/6/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/2/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/4/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/6/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Municipal Primary Influent-KWRP

Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
11/8/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/3/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/4/96	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/6/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/12/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/3/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/10/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/3/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/17/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/1/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	TW files
4/14/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/5/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/19/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/2/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/9/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/7/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/21/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/4/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/25/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/8/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/22/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/6/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/20/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/4/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/17/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/8/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/15/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/12/98	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/19/98	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/2/98	<0 1 ug/l									
2/16/98	<0 1 ug/l									
4/01/98	<0 1 ug/l									
7/6/98	<0 1 ug/l									
10/5/98	<0 05 ug/L	<0 05	<0 05	<0 05	<0 05	<0 05	<0 05	<0 05	<0 05	KAR report
1/4/99	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/5/99	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/12/99	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/4/99	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/17/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/3/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/3/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/2/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/2/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/1/01	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/2/01	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/1/01	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/18/02	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Municipal Industrial Influent-KWRP

Date	Total	PCB Arochloris							Comments
		1016	1221	1232	1242	1248	1254	1260	
10/22/85-10/23/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/27/85-10/28/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/7/85-11/8/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/15/85-11/16/85	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/10/87	<0 1 ug/L		<0 1		<0 04		<0 02	<0 02	
9/28/90	<0 1 ug/L								
10/11/90	<0 1 ug/L								
10/17/90	<0 1 ug/L								
11/1/90	<0 0001 mg/L								
11/14/90	<1 0 ug/L	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	
12/5/90	<0 2 ug/L	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2
12/14/90	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
1/4/91	0.93 ug/L	<0 1	<0 1	<0 1	0.93	<0 1	<0 1	<0 1	<0 1
1/9/91	<1 0 ug/L	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0
2/1/91	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
2/11/91	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
3/6/91	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
3/13/91	<0 4 ug/L	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4
4/5/91	<0 4 ug/L	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4	<0 4
4/12/91	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
5/9/91	<0 0001 mg/L								
5/15/91	<0 0001 mg/L								
6/5/91	<0 0001 mg/L								
6/19/91	<0 0001 mg/L								reported on lab sheet as mg/kg
7/5/91	<0 0001 mg/L								
7/15/91	<0 0001 mg/L								
8/15/91	<0 0001 mg/L								
8/19/91	<0 0001 mg/L								
9/3/91	<0 0001 mg/L								
9/18/91	<0 01 mg/L								
10/10/91	<0 0001 mg/L								
10/14/91	<0 0001 mg/L								
11/1/91	<0 001 mg/L								
11/13/91	<0 0001 mg/L								
12/9/91	<0 0001 mg/L								
12/11/91	<0 0002 mg/L								
1/3/92	<0 001 mg/L								
1/7/92	<0 01 mg/L								
2/6/92	<0 02 mg/L								
2/11/92	<0 02 mg/L								
3/4/92	<0 01 mg/L								
3/10/92	<0 01 mg/L								
4/1/92	<0 0001 mg/L								
4/7/92	<0 002 mg/L								
5/4/92	<0 01 mg/L								
5/11/92	<0 001 mg/L								
6/3/92	<0 02 mg/L								
6/10/92	<0 01 mg/L								
7/1/92	<0 01 mg/L								
'7/9/92	<0 01 mg/L								
8/3/92	<0 01 mg/L								
8/6/92	<0 01 mg/L								

2003 EPA-PCB Data Request

Municipal Industrial Influent-KWRP

Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
9/2/92	<0 0001 mg/L									
9/14/92	<0 0001 mg/L									
10/5/92	<0 0001 mg/L									
10/8/92	<0 001 mg/L									
11/4/92	<0 0001 mg/L									
11/09/92	<0 0001 mg/L									
12/2/92	<0 0001 mg/L									
12/4/92	<0 025 mg/L									
1/8/93	<0 001 mg/L									
1/13/93	<0 01 mg/L									
2/3/93	<0 0001 mg/L									
2/8/93	<0 001 mg/L									
3/3/93	<0 0001 mg/L									
3/11/93	<0 0001 mg/L									
4/8/93	<0 0001 mg/L									
4/12/93	<0 0001 mg/L									
5/5/93	<0 001 mg/L									
5/12/93	<0 01 mg/L									
6/7/93	<0 0005 mg/L									
6/14/93	<0 01 mg/L									
7/9/93	<0 0001 mg/L									
7/12/93	<0 0001 mg/L									
8/5/93	<0 001 mg/L									
8/9/93	<0 0001 mg/L									
9/9/93	<0 0001 mg/L									
9/13/93	<0 0001 mg/L									
10/6/93	<0 0001 mg/L									
10/13/93	<0 0001 mg/L									
11/5/93	<0 0001 mg/L									
11/8/93	<0 0001 mg/L									
12/9/93	<0 0001 mg/L									
12/13/93	<0 0001 mg/L									
1/6/94	<0 001 mg/L									
1/10/94	<0 001 mg/L									
2/7/94	<0 001 mg/L									
2/10/94	<0 01 mg/L									
3/3/94	<0 001 mg/L									
3/7/94	<0 001 mg/L									
4/6/94	<0 001 mg/L									
4/7/94	<0 001 mg/L									
5/9/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/10/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/9/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/10/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/11/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/13/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/4/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/10/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/6/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/8/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/4/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/6/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Municipal Industrial Influent-KWRP

Date	Total	PCB Arochloris							Comments
		1016	1221	1232	1242	1248	1254	1260	
11/3/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/7/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/5/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/15/94	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/5/95	<0 1 ug/L								Annual PCB/Hg report data
1/11/95	<0 1 ug/L								Annual PCB/Hg report data
2/1/95	<0 1 ug/L								Annual PCB/Hg report data
2/13/95	<0 1 ug/L								Annual PCB/Hg report data
3/2/95	<0 1 ug/L								Annual PCB/Hg report data
3/13/95	<0 1 ug/L								Annual PCB/Hg report data
4/6/95	<0 1 ug/L								Annual PCB/Hg report data
4/13/95	<0 1 ug/L								Annual PCB/Hg report data
5/4/95	<0 1 ug/L								Annual PCB/Hg report data
5/15/95	<0 1 ug/L								Annual PCB/Hg report data
6/1/95	<0 1 ug/L								Annual PCB/Hg report data
6/14/95	<0 1 ug/L								Annual PCB/Hg report data
7/6/95	<0 1 ug/L								Annual PCB/Hg report data
8/9/95	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/15/95	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/1/95	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/8/95	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/3/95	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/5/95	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/3/95	<0 1ug/L								Annual PCB/Hg report data
11/8/95	<0 1ug/L								Annual PCB/Hg report data
12/5/95	<0 1ug/L								Annual PCB/Hg report data
12/7/95	<0 1ug/L								Annual PCB/Hg report data
1/4/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/5/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/7/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/9/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/5/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/7/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/3/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/5/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/7/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/9/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/4/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/6/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/9/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/11/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/6/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/8/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/5/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/6/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/2/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/4/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/6/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/8/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/3/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/4/96	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/6/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Municipal Industrial Influent-KWRP

Date	Total	PCB Arochloris							Comments
		1016	1221	1232	1242	1248	1254	1260	
1/12/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/3/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/10/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/3/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/14/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/5/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/19/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/2/97	na								No results due to matrix interference
6/9/97	na								
6/30/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/7/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/21/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/4/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/25/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/15/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/22/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/6/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/20/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/4/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
11/17/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/8/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/15/97	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/12/98	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/19/98	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/2/98	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/15/98	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/1/98	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/6/98	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/5/98	<0 05 ug/L	<0 05	<0 05	<0 05	<0 05	<0 05	<0 05	<0 05	KAR report
1/4/99	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/5/99	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/12/99	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/4/99	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/17/00	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/3/00	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/3/00	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
8/2/00	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/2/00	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/1/01	<0 1ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Incinerator Ash (INA)-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
8/11/81	<1 mg/L	<1	<1	<1	<1	<1	<1	<1	
4/29/86	<0 2 ug/L				<0 2	<0 2	<0 2	<0 2	
5/6/86	<0 2 ug/L				<0 2	<0 2	<0 2	<0 2	
6/19/87	<0 1 ug/L								
9/9/87	<1 0 ug/L								
12/9/87	<0 1 ug/L								
1/8/88	<0 1 ug/L								
3/31/88	<0 1 ug/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
6/30/88	<0 1 ug/L								
'7/28/88	<0 1 ug/L								
6/2/89 (leachate)	<0 1 ug/L								
6/12/89 (leachate)	<0 1 ug/L								
10/12/89 (leachate)	<0 1 ug/L								
1/22/90 (leachate)	<0 1 ug/L								
2/9/90	<1 0 mg/kg	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	
2/11/90	<1 0 mg/kg	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	
2/13/90	<1 0 mg/kg	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	
2/15/90	<1 0 mg/kg	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	<1 0	
3/7/90 (leachate)	<0 1 ug/L								
9/26/90 (leachate)	<0 0001 mg/L								
9/28/90	<0 1 mg/kg								
10/11/90	<0 1 mg/kg								
10/17/90	<0 1 mg/kg								
11/1/90	2 4 mg/kg								
11/2/90 (leachate)	<0 0001 mg/L								
11/14/90	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/5/90	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/13/90	<0 5 mg/kg	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	
1/3/91	<0 2 mg/kg	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	
1/9/91	<0 2 mg/kg	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	
1/28/91	<0 0001 mg/L								
2/1/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/7/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/5/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/13/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/5/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/11/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/9/91	<0 001 mg/kg								
5/14/91	<0 001 mg/kg								
6/4/91	<0 01 mg/kg								
6/12/91	<0 0002 mg/kg								
6/28/91 (leachate)	<0 0001 mg/L								
7/3/91	<0 01 mg/kg								
7/26/91	<0 01 mg/kg								
7/29/91	<0 01 mg/kg								
8/15/91	<0 01 mg/kg								
8/19/91	<0 01 mg/kg								
9/3/91	<0 01 mg/kg								
9/17/91	<0 01 mg/kg								
9/30/91 (leachate)	<0 0001 mg/L								
10/10/91	<0 01 mg/kg								
10/14/91	<0 01 mg/kg								

2003 EPA-PCB Data Request

Incinerator Ash (INA)-KWRP

Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
10/28/91 (leachate)	<0 0001 mg/L									
11/1/91	<0 01 mg/kg									
11/13/91	<0 01 mg/kg									
12/9/91	<0 1 mg/kg									
12/11/91	<0 2 mg/kg									
1/3/92	<1 0 mg/kg									
1/7/92	<1 0 mg/kg									
2/6/92	<0 1 mg/kg									
2/11/92	<0 01 mg/kg									
3/4/92	<0 1 mg/kg									
3/10/92 (leachate)	<0 0001 mg/L									
3/10/92	<0 01 mg/kg									
4/1/92	<0 1 mg/kg									
4/7/92	<0 01 mg/kg									
5/6/92	<0 1 mg/kg									
5/8/92	<0 1 mg/kg									
5/14/92 (leachate)	<0 0001 mg/l									
6/3/92	<0 05 mg/kg									
6/10/92	<0 05 mg/kg									
7/1/92	<0 05 mg/kg									
7/9/92	<0 5 mg/kg									
8/3/92	<0 5 mg/kg									
8/6/92	<0 3 mg/kg									
9/2/92	<0 33 mg/kg									
9/14/92	<0 33 mg/kg									
9/30/92 (leachate)	<0 0001 mg/l									
10/5/92	<0 33 mg/kg									
10/8/92	<0 33 mg/kg									
11/3/92	<0 48 mg/kg									
11/6/92 (leachate)	<0 01 mg/l									
11/12/92	<0 33 mg/kg									
12/1/92	<0 33 mg/kg									
12/3/92	<0 33 mg/kg									
1/7/93	<0 30 mg/kg									
1/12/93	<0 30 mg/kg									
2/3/93	<0 33 mg/kg									
2/4/93	<0 33 mg/kg									
3/8/93	<0 33 mg/kg									
3/9/93	<0 33 mg/kg									
4/7/93 (leachate)	<0 0001 mg/L									
4/7/93	<0 30 mg/kg									
4/8/93	<0 30 mg/kg									
5/3/93	<0 30 mg/kg									
5/12/93	<0 30 mg/kg									
6/7/93	<0 30 mg/kg									
6/10/93	<0 30 mg/kg									
7/10/93	<0 30 mg/kg									
7/12/93	<0 30 mg/kg									
8/2/93	<0 30 mg/kg									
8/5/93	<0 30 mg/kg									
9/7/93	<0 30 mg/kg									
9/9/93	<0 30 mg/kg									

2003 EPA-PCB Data Request

Incinerator Ash (INA)-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
9/28/93 (leachate)	<0 0001 mg/L								
10/6/93	<0 30 mg/kg								
10/12/93	<0 30 mg/kg								
11/4/93	<0 30 mg/kg								
11/6/93	<0 30 mg/kg								
12/8/93	<0 30 mg/kg								
12/10/93	<0 30 mg/kg								
12/15/93 (leachate)	<0 01 mg/L								
1/6/93	<0 30 mg/kg								
1/10/94	<0 30 mg/kg								
1/19/94 (leachate)	<0 01 mg/L								
2/23/94	<0 30 mg/kg								
2/24/94	<0 30 mg/kg								
3/2/94	<0 30 mg/kg								
3/6/94	<0 30 mg/kg								
4/5/94	<0 30 mg/kg								
4/6/94	<0 30 mg/kg								
5/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/10/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/8/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/11/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/13/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/3/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/7/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/3/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/2/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/4/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/14/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/5/95	<330 ug/kg								Annual PCB/Hg report data
1/11/95	<330 ug/kg								Annual PCB/Hg report data
2/1/95	<330 ug/kg								Annual PCB/Hg report data
2/13/1995	<330 ug/kg								Annual PCB/Hg report data
3/2/95	<330 ug/kg								Annual PCB/Hg report data
3/13/95	<330 ug/kg								Annual PCB/Hg report data
4/6/95	<330 ug/kg								Annual PCB/Hg report data
4/13/95	<330 ug/kg								Annual PCB/Hg report data
5/4/95	<330 ug/kg								Annual PCB/Hg report data
5/15/95	<330 ug/kg								Annual PCB/Hg report data
6/1/95	<330 ug/kg								Annual PCB/Hg report data
6/14/95	<330 ug/kg								Annual PCB/Hg report data
7/6/95	<330 ug/kg								Annual PCB/Hg report data
8/9/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/15/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/1/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/8/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/3/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/5/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	

2003 EPA-PCB Data Request

Incinerator Ash (INA)-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
11/3/95	<330 ug/kg								Annual PCB/Hg report data
11/8/95	<330 ug/kg								Annual PCB/Hg report data
12/5/95	<330 ug/kg								Annual PCB/Hg report data
12/7/95	<330 ug/kg								Annual PCB/Hg report data
1/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/19/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/20/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/3/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/11/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/8/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/2/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/8/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/20/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/21/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/22/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/10/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/16/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/12/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/17/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/14/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/6/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/12/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/2/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/9/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/7/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/22/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/4/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/25/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/9/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/23/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/20/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
'10/27/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/5/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/25/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/15/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	

2003 EPA-PCB Data Request

Incinerator Ash (INA)-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
1/12/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/19/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/2/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/16/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
WAR Building Ash									
4/29/86	<0.2 ug/L				<0.2	<0.2	<0.2	<0.2	
5/6/86	<0.2 ug/L				<0.2	<0.2	<0.2	<0.2	
6/19/87	<0.1 ug/L								
9/9/87	<0.1 ug/L								
12/9/87	<0.1 ug/L								
1/8/88	<0.1 ug/L								
3/31/88	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
6/30/88	<0.1 ug/L								
7/28/1988	<0.1 ug/L								

2003 EPA-PCB Data Request

Belt Press Cake-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
8/11/81	<1 mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
8/24/81	<1 mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
9/02/81	<1 mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
9/11/81	<1 mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
9/9/87	<0.001 mg/L								
6/2/89 (leachate)	<0.1 ug/l								
6/12/89 (leachate)	<0.1 ug/l								
10/12/89 (leachate)	<0.1 ug/l								
1/22/90 (leachate)	<0.1 ug/l								
3/7/90 (leachate)	<0.1 ug/l								
9/26/90 (leachate)	<0.0001 mg/L								
9/28/90	<0.1 mg/kg								
10/11/90	<0.1 mg/kg								
10/17/90	<0.1 mg/kg								
11/1/90	0.085 mg/kg								
11/2/90 (leachate)	<0.0001 mg/L								
11/14/90	<0.1 mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
12/5/90	<1.0 mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/13/90	<0.5 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1/3/91	<1.0 mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1/9/91	<1.0 mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1/28/91 (leachate)	<0.0001 mg/L								
2/1/91	<0.1 mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
2/7/91	<0.5 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
2/11/91	<0.5 mg/kg								Annual PCB/Hg report data
3/5/91	<0.1 mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
3/13/91	<0.5 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
4/5/91	<0.5 mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
4/11/91	<0.1 mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
5/8/91	<0.001 mg/kg								
5/14/91	<0.001 mg/kg								
6/4/91	<0.01 mg/kg								
6/12/91	<0.0002 mg/kg								
6/28/91 (leachate)	<0.0001 mg/L								
7/3/91	<0.01 mg/kg								
7/16/91	<0.01 mg/kg								
7/26/91	<0.01 mg/kg								
7/29/91	<0.01 mg/kg								
8/6/91	<0.3 mg/kg								
8/15/91	<0.01 mg/kg								
8/19/91	<0.01 mg/kg								
9/3/91	<0.01 mg/kg								
9/17/91	<0.01 mg/kg								
9/30/91 (leachate)	<0.0001 mg/L								
10/10/91	<0.01 mg/kg								
10/14/91	<0.01 mg/kg								
11/01/91	<0.01 mg/kg								
11/13/91	<0.01 mg/kg								
12/9/91	<1.0 mg/kg								
12/11/91	<1.0 mg/kg								
1/3/92	<1.0 mg/kg								
1/7/92	<1.0 mg/kg								

2003 EPA-PCB Data Request

Belt Press Cake-KWRP

Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
2/6/92	<1 0 mg/kg									
2/11/92	<1 0 mg/kg									
3/4/92	<5 0 mg/kg									
3/10/92	<1 0 mg/kg									
4/1/92	<1 0 mg/kg									
4/7/92	<1 0 mg/kg									
5/6/92	<1 0 mg/kg									
5/8/92	<1 0 mg/kg									
6/3/92	<0 5 mg/kg									
6/10/92	<0 5 mg/kg									
7/1/92	<0 5 mg/kg									
7/9/92	<0 05 mg/kg									
8/3/92	<0 5 mg/kg									
8/6/92	<0 3 mg/kg									
9/2/92	<0 33 mg/kg									
10/5/92	<0 33 mg/kg									
10/8/92	<0 33 mg/kg									
11/3/92	<0 48 mg/kg									
11/12/92	<0 50 mg/kg									
12/1/92	<0 49 mg/kg									
12/3/92	<9 0 mg/kg									
1/7/93	<0 30 mg/kg									
1/12/93	<0 30 mg/kg									
2/3/93	<0 33 mg/kg									
2/4/93	<0 33 mg/kg									
3/3/93	<0 33 mg/kg									
3/8/93	<0 33 mg/kg									
4/7/93	<0 30 mg/kg									
4/8/93	<0 30 mg/kg									
5/3/93	<0 30 mg/kg									
5/11/93	<0 30 mg/kg									
6/7/93	<0 50 mg/kg									
6/14/93	<0 30 mg/kg									
7/10/93	<0 30 mg/kg									
7/12/93	<0 50 mg/kg									
8/2/93	<0 50 mg/kg									
8/5/93	<0 30 mg/kg									
9/7/93	<0 30 mg/kg									
9/9/93	<0 30 mg/kg									
10/6/93	<0 30 mg/kg									
10/12/93	<0 30 mg/kg									
11/4/93	<0 30 mg/kg									
11/6/93	<0 30 mg/kg									
12/8/93	<0 30 mg/kg									
12/10/93	<0 30 mg/kg									
1/6/93	<0 70 mg/kg									
1/10/94	<0 50 mg/kg									
2/6/94	<0 30 mg/kg									
2/8/94	<1 0 mg/kg									
3/2/94	<0 5 mg/kg									
3/6/94	<0 5 mg/kg									
4/5/94	<0 30 mg/kg									

2003 EPA-PCB Data Request

Belt Press Cake-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
4/6/94	<30 mg/kg								
5/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/10/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/8/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/11/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/13/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/3/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/7/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/3/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/2/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/4/94	570 ug/kg	<330	<330	<330	570	<330	<330	<330	
12/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/14/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/5/95	<330 ug/kg								Annual PCB/Hg report data
1/11/95	<330 ug/kg								Annual PCB/Hg report data
2/1/95	<330 ug/kg								Annual PCB/Hg report data
2/13/95	<330 ug/kg								Annual PCB/Hg report data
3/2/95	<330 ug/kg								Annual PCB/Hg report data
3/13/95	<330 ug/kg								Annual PCB/Hg report data
4/6/95	<330 ug/kg								Annual PCB/Hg report data
4/13/95	<330 ug/kg								Annual PCB/Hg report data
5/4/95	<330 ug/kg								Annual PCB/Hg report data
5/15/95	<330 ug/kg								Annual PCB/Hg report data
6/1/95	<330 ug/kg								Annual PCB/Hg report data
6/14/95	<330 ug/kg								Annual PCB/Hg report data
7/6/95	<330 ug/kg								Annual PCB/Hg report data
8/9/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/15/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/1/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/8/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/3/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/5/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/3/95	<330 ug/kg								Annual PCB/Hg report data
11/8/95	<330 ug/kg								Annual PCB/Hg report data
12/5/95	<330 ug/kg								Annual PCB/Hg report data
12/7/95	<330 ug/kg								Annual PCB/Hg report data
1/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/3/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	

2003 EPA-PCB Data Request

Belt Press Cake-KWRP

Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
7/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
7/11/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
8/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
8/8/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
9/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
9/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
10/2/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
10/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
11/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
11/8/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
12/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
12/17/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
1/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
1/21/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
1/22/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
2/10/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
2/16/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
3/12/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
3/17/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
4/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
4/14/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
5/6/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
5/12/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
6/2/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
6/9/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
7/7/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
7/22/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
8/4/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
8/25/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
9/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
9/23/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
10/6/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
10/20/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
11/5/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
11/24/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
12/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
12/15/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
1/12/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
1/19/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
2/2/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
2/16/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
Mixed belt press cake (MBPC)										
Primary sludge & Spent carbon 4/9/00	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
(CBPC)										
Primary sludge & Spent carbon 9/10/02	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	

2003 EPA-PCB Date Request

DSE Filter Press Cake-KWRP

Date	PCB Arochlor								Comments	
	Total	1016	1221	1232	1242	1248	1254	1260	1262	
2/9/90	<2 0 mg/kg	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	
2/11/90	<2 0 mg/kg	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	
2/13/90	<2 0 mg/kg	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	
2/15/90	<2 0 mg/kg	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	
9/28/90	<0 1 mg/kg									
10/11/90	<0 1 mg/kg									
10/17/90	<0 1 mg/kg									
11/1/90	11.7 mg/kg									
11/14/90	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/5/90	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
12/13/90	<0 5 mg/kg	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	
1/3/91	<0 2 mg/kg	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	
1/9/91	<0 2 mg/kg	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	<0 2	
2/1/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/7/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
3/5/91	<0 1 mg/kg									
3/13/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/5/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/11/91	<0 1 mg/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
5/8/91	<0 001 mg/kg									
5/14/91	<0 001 mg/kg									
6/4/91	<0 01 mg/kg									
6/12/91	<0 0002 mg/kg									
7/3/91	<0 01 mg/kg									
7/16/91	<0 01 mg/kg									
7/26/91	<0 01 mg/kg									
7/29/91	<0 01 mg/kg									
8/15/91	<0 01 mg/kg									
8/19/91	<0 01 mg/kg									
9/3/91	<0 01 mg/kg									
9/17/91	<0 01 mg/kg									
10/10/91	<0 01 mg/kg									
10/14/91	<0 01 mg/kg									
10/28/91 (leachate)	<0 0001 mg/L									
11/1/91	<0 01 mg/kg									
11/13/91	<0 01 mg/kg									
12/9/91	<0 01 mg/kg									
12/11/91	<0 01 mg/kg									
1/3/92	<0 1 mg/kg									
1/7/92	<0 1 mg/kg									
2/6/92	<0 01 mg/kg									
2/11/92	<0 01 mg/kg									
3/4/92	<0 01 mg/kg									
3/10/92 (leachate)	<0 0001 mg/L									
3/10/92	<0 01 mg/kg									
4/1/92	<0 01 mg/kg									
4/7/92	<0 01 mg/kg									
5/6/92	<0 01 mg/kg									
5/8/92	<0 05 mg/kg									
5/14/92 (leachate)	<0 0001 mg/L									
6/3/92	<0 005 mg/kg									
6/10/92	<0 05 mg/kg									

2003 EPA-PCB Date Request

DSE Filter Press Cake-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
7/1/92	<0.5 mg/kg								
7/9/92	<0.05 mg/kg								
8/3/92	<0.05 mg/kg								
8/6/92	<0.03 mg/kg								
9/2/92	<0.33 mg/kg								
9/14/92	<0.33 mg/kg								
9/30/92 (leachate)	<0.0001 mg/L								
10/5/92	<0.33 mg/kg								
10/8/92	<0.33 mg/kg								
11/3/92	<0.33 mg/kg								
11/6/92 (leachate)	<0.01 mg/L								
11/12/92	<0.33 mg/kg								
12/1/92	<0.33 mg/kg								
12/3/92	<0.33 mg/kg								
1/7/93	<0.30 mg/kg								
1/12/93	<0.30 mg/kg								
2/3/93	<0.33 mg/kg								
2/4/93	<0.33 mg/kg								
3/2/93	<0.33 mg/kg								
3/8/93	<0.33 mg/kg								
4/7/93 (leachate)	<0.0001 mg/L								
4/7/93	<0.30 mg/kg								
4/8/93	<0.30 mg/kg								
5/3/93	<0.30 mg/kg								
5/11/93	<0.30 mg/kg								
6/7/93	<0.30 mg/kg								
6/10/93	<0.30 mg/kg								
7/10/93	<0.30 mg/kg								
7/12/93	<0.30 mg/kg								
8/2/93	<0.30 mg/kg								
8/5/93	<0.30 mg/kg								
9/7/93	<0.30 mg/kg								
9/9/93	<0.30 mg/kg								
9/28/93 (leachate)	<0.0001 mg/L								
10/6/93	<0.30 mg/kg								
10/12/93	<0.30 mg/kg								
11/4/93	<0.30 mg/kg								
11/6/93	<0.30 mg/kg								
12/8/93	<0.30 mg/kg								
12/10/93	<0.30 mg/kg								
12/15/93	<0.01 mg/L								
1/6/94	<0.30 mg/kg								
1/9/94	<0.30 mg/kg								
1/19/94 (leachate)	<0.01 mg/L								
2/6/94	<0.30 mg/kg								
2/8/94	<0.30 mg/kg								
3/2/94	<0.30 mg/kg								
3/6/94	<0.30 mg/kg								
4/5/94	<0.30 mg/kg								
4/6/94	<0.30 mg/kg								
5/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/10/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	

2003 EPA-PCB Date Request

DSE Filter Press Cake-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
6/8/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/11/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/13/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/3/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/9/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/7/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/3/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/2/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/4/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/5/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/14/94	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
12/15/94	<330 ug/kg								Annual PCB/Hg report data
1/5/95	<330 ug/kg								Annual PCB/Hg report data
1/11/95	<330 ug/kg								Annual PCB/Hg report data
2/1/95	<330 ug/kg								Annual PCB/Hg report data
2/13/95	<330 ug/kg								Annual PCB/Hg report data
3/2/95	<330 ug/kg								Annual PCB/Hg report data
3/13/95	<330 ug/kg								Annual PCB/Hg report data
4/6/95	<330 ug/kg								Annual PCB/Hg report data
4/13/95	<330 ug/kg								Annual PCB/Hg report data
5/4/95	<330 ug/kg								Annual PCB/Hg report data
5/15/95	<330 ug/kg								Annual PCB/Hg report data
6/1/95	<330 ug/kg								Annual PCB/Hg report data
6/14/95	<330 ug/kg								Annual PCB/Hg report data
7/6/95	<330 ug/kg								Annual PCB/Hg report data
8/9/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
8/15/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/1/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
9/8/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/12/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
10/13/95	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
11/3/95	<330 ug/kg								Annual PCB/Hg report data
11/8/95	<330 ug/kg								Annual PCB/Hg report data
12/5/95	<330 ug/kg								Annual PCB/Hg report data
12/7/95	<330 ug/kg								Annual PCB/Hg report data
1/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
1/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
2/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
3/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/3/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
4/5/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/7/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
5/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/4/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
6/6/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/9/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	
7/11/96	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	

2003 EPA-PCB Date Request

DSE Filter Press Cake-KWRP

2003 EPA-PCB Data Request

Misc. KWRP

Sample Identification/Date	Total	PCB Arochlors								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
Municipal Scum										
8/11/81	<1 mg/L	<1	<1	<1	<1	<1	<1	<1	<1	
Industrial Scum										
8/11/81	<10 mg/L	<10	<10	<10	<10	<10	<10	<10	<10	
Scum										
"2/12/90	<14 0 mg/kg	<14 0	<14 0	<14 0	<14 0	<14 0	<14 0	<14 0	<14 0	
2/15/90	<8 0 mg/kg	<8 0	<8 0	<8 0	<8 0	<8 0	<8 0	<8 0	<8 0	
Grit										
8/11/81	<1 mg/L	<1	<1	<1	<1	<1	<1	<1	<1	
9/9/87	<0 001 mg/l									
3/31/88	<0 1 ug/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/9/90	<30 mg/L	<3 0*	<30	<30	<30	<30	<30	<30	<30	<3* Elevated detection level on 1016, all others arochlors were reported as 30
2/11/90	<7 0 mg/kg	<7 0	<7 0	<7 0	<7 0	<7 0	<7 0	<7 0	<7 0	
2/13/90	<5 5 mg/kg	<5 5	<5 5	<5 5	<5 5	<5 5	<5 5	<5 5	<5 5	
2/15/90	<6 0 mg/kg	<6 0	<6 0	<6 0	<6 0	<6 0	<6 0	<6 0	<6 0	
Wastewater Screenings										
8/11/81	<1 mg/L	<1	<1	<1	<1	<1	<1	<1	<1	
Mun&ind screening										
9/9/97	<0 001 mg/L									
Mun Screen										
2/9/90	<4 0 mg/kg	<4 0	<4 0	<4 0	<4 0	<4 0	<4 0	<4 0	<4 0	
2/12/90	<4 0 mg/kg	<4 0	<4 0	<4 0	<4 0	<4 0	<4 0	<4 0	<4 0	
2/13/90	<15 0 mg/kg	<15 0	<15 0	<15 0	<15 0	<15 0	<15 0	<15 0	<15 0	Elevated detection level due to matrix interferences
2/15/90	<6 0 mg/kg	<6 0	<6 0	<6 0	<6 0	<6 0	<6 0	<6 0	<6 0	
Grit/Screenings Material hauled to landfill (MSDL)										
4/9/02	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
10/30/02	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
Industrial screen										
1/15/90	<2 0 mg/kg	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	<2 0	
2/9/90	<5 0 mg/kg	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	
2/11/90	<5 0 mg/kg	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	
2/13/90	<5 0 mg/kg	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	<5 0	
KWWTP D&L										
9/28/90	<0 1 mg/kg									

2003 EPA-PCB Data Request

Misc. KWRP

Sample Identification/Date	Total	PCB Arochloris								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
Vac Filter										
2/9/90	<2.5 mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
2/11/90	<2.0 mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
2/13/90	<2.5 mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
2/15/90	<2.5 mg/kg	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
IPO ash										
9/9/87	<0.001 mg/L									
By-Products Solids Area (Skippers Crossing)										
1981 data										
8.5-10 feet depth	0.24 mg/Kg				0.24					
13.5-15 feet depth	0.42 mg/Kg				0.42					
15-16 feet depth	0.85 mg/Kg				0.85					
18.5-20 feet depth	0.087 mg/Kg				0.087					
Gull Lake										
3/23/87	<0.06 ug/L		<0.06		<0.01		<0.01	0.03*		* 0.03 ug/L reported in all samples including control blanks
10/26/87	<0.07 ug/L		<0.07		<0.04		<0.08	<0.05		
Meredith Road										
3/23/87	<0.06 ug/L		<0.06		<0.01		<0.01	0.03*		
10/26/87	<0.06 ug/L		<0.06		<0.06		<0.04	<0.04		
3/30/88	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
9/11/00	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Parchment Station										
3/23/87	<0.06 ug/L		<0.06		<0.01		<0.01	0.03*		
10/26/87	<0.06 ug/L		<0.06		<0.06		<0.04	<0.04		
3/30/88	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
9/7/00	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Portage Creek										
3/23/87	<0.06 ug/L		<0.06		<0.01		<0.01	0.03*		
10/26/87	<0.06 ug/L		<0.04		<0.03		<0.06	<0.03		
3/30/88	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
9/11/00	<0.1 ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Vicksburg										
10/26/87	<0.06 ug/L		<0.06		<0.02		<0.03	<0.02		

2003 EPA-PCB Data Request

Misc. KWRP

Sample Identification/Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
3/31/88	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
9/7/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Mattawan liftstation										
9/7/00	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Richland K potw										
3/31/88	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
North Limits Drain										
NL1 3/12/90 (liquid)	<0 0001 mg/L									
NL1 3/12/90 (sediment)	<0 1 mg/kg									
NL2 3/12/90 (liquid)	<0 0001 mg/L									
NL3 3/12/90 (liquid)	<0 0001 mg/L									
NL3 3/12/90 (sediment)	<0 1 mg/kg									
NL4 3/12/90 (liquid)	<0 0001 mg/L									
NL4 3/12/90 (sediment)	<0 1 mg/kg									
NL5 3/12/90 (liquid)	<0 0001 mg/L									
KWRP- Transformers										
#1 4/16/97	3 7 mg/kg									
#2 4/16/97	13 mg/kg									
#3 4/16/97	<1 mg/kg									
Pilot Plant Samples-KWRP										
STEF 7/8/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
NTEF 7/8/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
SSIN 7/8/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
NSIN 7/8/97	<0 1 ug/l	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Municipal Primary Sludge to Thickener-KWRP

Date	Total	PCB Arochlor								Comments
		1016	1221	1232	1242	1248	1254	1260	1262	
10/22/85	<0 024 mg/Kg	<0 024	<0 024	<0 024	<0 024	<0 024	<0 024	<0 024	<0 024	
10/27/85	13 3 mg/Kg							13 3		
11/7/85	1 7 mg/Kg						1 7			
11/14/85	0 074 mg/Kg						0 074			
11/20/85	<0 022 mg/Kg	<0 022	<0 022	<0 022	<0 022	<0 022	<0 022	<0 022	<0 022	
11/25/85	<0 045 mg/Kg	<0 045	<0 045	<0 045	<0 045	<0 045	<0 045	<0 045	<0 045	
4/8/87	<4 ug/L		<0 2		<2		<4	<2		
3/31/88	<0 1 ug/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/1/98	<1000 ug/kg	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	
4/27/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	<330	<330	
7/6/98	<4000 ug/kg	<4000	<4000	<4000	<4000	<4000	<4000	<4000	<4000	
7/30/98	0 7 ug/L	<0 5	<0 5	<0 5	<0 5	<0 5	0 7	<0 5		
10/5/98	<3000 ug/kg	<3000	<3000	<3000	<3000	<3000	<3000	<3000	<3000	
1/12/99	<3000 ug/kg	<3000	<3000	<3000	<3000	<3000	<3000	<3000	<3000	
2/1/99	<1900 ug/kg	<1900	<1900	<1900	<1900	<1900	<1900	<1900	<1900	
4/5/99	<3300 ug/kg	<3300	<3300	<3300	<3300	<3300	<3300	<3300	<3300	
7/12/99	<3600 ug/kg	<3600	<3600	<3600	<3600	<3600	<3600	<3600	<3600	
10/19/99	<3300 ug/kg	<3300	<3300	<3300	<3300	<3300	<3300	<3300	<3300	
1/17/00	<2000 ug/kg	<2000	<2000	<2000	<2000	<2000	<2000	<2000	<2000	
4/3/00	<0 33 mg/kg	<0 33	<330	<330	<330	<330	<330	<330	<330	
7/5/00	<5700 ug/kg	<5700	<5700	<5700	<5700	<5700	<5700	<5700	<5700	
10/2/00	<2 7 mg/kg	<2 7	<2 7	<2 7	<2 7	<2 7	<2 7	<2 7	<2 7	
1/3/01	<2 4 mg/kg	<2 4	<2 4	<2 4	<2 4	<2 4	<2 4	<2 4	<2 4	
4/5/01	<1600 ug/kg	<1600	<1600	<1600	<1600	<1600	<1600	<1600	<1600	
7/2/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

Industrial Sludge to Thickener-KWRP

Date	Total	PCB Arochloris							Comments
		1016	1221	1232	1242	1248	1254	1260	
10/22/85	1 13 mg/Kg						1 13		
10/27/85	<0 25 mg/Kg	<0 25	<0 25	<0 25	<0 25	<0 25	<0 25	<0 25	
11/7/85	<0 083 mg/Kg	<0 083	<0 083	<0 083	<0 083	<0 083	<0 083	<0 083	
11/14/85	<0 50 mg/Kg	<0 50	<0 50	<0 50	<0 50	<0 50	<0 50	<0 50	
4/22/87	<1 ug/L		<1		<1		<1	<0 3	
3/31/88	<0 1 ug/kg	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/1/98	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
4/27/98	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/6/98	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/30/98	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/5/98	<4000 ug/kg	<4000	<4000	<4000	<4000	<4000	<4000	<4000	
1/12/99	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
2/1/99	0 2 ug/L	<0 1	<0 1	<0 1	0 2	<0 1	<0 1	<0 1	
4/5/99	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
7/12/99	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/19/99	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
1/17/00	0 2 ug/L	<0 1	<0 1	<0 1	0 2	<0 1	<0 1	<0 1	
4/3/00	0 2 ug/L	<0 1	<0 1	<0 1	0 2	<0 1	<0 1	<0 1	
7/5/00	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
10/2/00	0 2 ug/L	<0 1	<0 1	<0 1	0 2	<0 1	<0 1	<0 1	
1/3/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	

2003 EPA-PCB Data Request

SCT Press Cake-KWRP

Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
Sct Press Cake	4/8/97	<330 ug/kg	<330	<330	<330	<330	<330	<330	
Spent Carbon to Thickner									
	4/1/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	
	4/27/98	<330 ug/kg	<330	<330	<330	<330	<330	<330	
	7/6/98	<1000 ug/kg	<1000	<1000	<1000	<1000	<1000	<1000	
	7/30/98	<0.1 ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	10/5/98	<1000 ug/kg	<1000	<1000	<1000	<1000	<1000	<1000	
	1/12/99	<330 ug/kg	<330	<330	<330	<330	<330	<330	
	2/1/99	<330 ug/kg	<330	<330	<330	<330	<330	<330	
	4/5/99	<500 ug/kg	<500	<500	<500	<500	<500	<500	
	7/12/99	<460 ug/kg	<460	<460	<460	<460	<460	<460	
	10/19/99	<500 ug/kg	<500	<500	<500	<500	<500	<500	
	1/17/00	<330 ug/kg	<330	<330	<330	<330	<330	<330	
	4/3/00	<0.38 mg/kg	<0.380	<0.380	<0.380	<0.380	<0.380	<0.380	
	7/5/00	<420 ug/kg	<420	<420	<420	<420	<420	<420	
	10/2/00	<0.78 mg/kg	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	
	1/3/01	<0.39 mg/kg	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	
	4/5/01	<690 ug/kg	<690	<690	<690	<690	<690	<690	
	7/2/01	<5 ug/L	<5	<5	<5	<5	<5	<5	
	10/1/01	<1200 ug/kg	<1200	<1200	<1200	<1200	<1200	<1200	

2003 EPA-PCB Data Request

Misc. Industrial Sites

Sample Site/ Date	Total	PCB Arochlor						Comments
		1016	1221	1232	1242	1248	1254	
Allied Paper	3/9/87 <0 04 ug/L		<0 02		<0 04		<0 02	<0 02
	6/24/87 <0 09 ug/L		<0 09		<0 05		<0 03	<0 03
	9/25/87 <0 06 ug/L		<0 06		<0 01		<0 01	<0 01
	12/2/87 <0 02 ug/L		<0 01		<0 01		<0 01	<0 02
	2/2/88 <0 02 ug/L		<0 02		<0 02		<0 01	<0 01
	4/26/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	7/18/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
James River	3/9/87 <7 ug/L		<4		<7		<0 08	<0 06
	6/24/87 <0 06 ug/L		<0 06		<0 03		<0 03	<0 04
	9/28/87 <0 08 ug/L		<0 08		<0 01		<0 01	<0 06
	12/2/87 <0 01 ug/L		<0 01		<0 01		<0 01	<0 01
	7/18/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	2/2/88 <0 06 ug/L		<0 06		<0 02		<0 01	<0 01
	4/25/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	2/21/90 <0 1 ug/L							
Upjohn Bishop	3/9/87 <0 2 ug/L		<0 2		<0 02		<0 04	<0 03
	6/24/1987 0 05 ug/L		<0 08		<0 05		0 05	<0 03
	9/25/87 <0 7 ug/L		<0 1		<0 1		<0 1	<0 7
	12/9/87 <0 02 ug/L		<0 01		<0 01		<0 01	<0 02
	4/26/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	7/18/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	2/21/90 <0 1 ug/L							
Georgia Pacific	3/9/87 <0 06 ug/L		<0 04		<0 06		<0 02	<0 02
	6/24/87 0 03 ug/L		<0 05		<0 03		0 03	<0 03
	9/25/87 <0 08 ug/L		<0 08		<0 01		<0 01	<0 01
	12/2/87 <0 02 ug/L		<0 01		<0 01		<0 01	<0 02
	2/2/88 <0 4 ug/L		<0 4		<0 02		<0 01	<0 02
	4/25/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	7/18/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	2/21/90 <0 1 ug/L							
BASF-Inmont	9/9/87 0 05 ug/L		<0 09		<0 05		0 05	<0 02
	12/9/87 <0 02 ug/L		<0 01		<0 01		<0 01	<0 02
	4/26/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	7/18/88 <0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1
	2/21/90 <0 1 ug/L							
Bronson Incinerator	9/9/87 <0 02 ug/L		<0 01		<0 01		<0 01	<0 02

2003 EPA-PCB Data Request

Misc. Industrial Sites

Sample Site/ Date	Total	PCB Arochlor							Comments
		1016	1221	1232	1242	1248	1254	1260	
ACE Hardware Cork st.									
5/9/94	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Ace I&M store/ storm spill									
transformer location taken to scrap 9/10/01	<0 5 ug/L	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	<0 5	
Upjohn Sites									
UK1 7/29/94	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
UJK 7/29/94	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
UJK 11/17/97	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
UJX 11/17/97	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
UJS 11/17/97	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Aeromotive	11/17/97	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Sparta Foundry	9/7/96	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Orchard Hill	10/24/97	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Millenium Holding	8/19/97	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
EPA Bryant Millpond	2/12/99	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Millenium Holding	12/18/00	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Millenium Holding	6/1/01	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Kalamazoo Valley landfill									
	3/19/98	<0 1 ug/L	<0 1	<0 1	<0 1	<0 1	<0 1	<0 1	
Sue coc#3740-									
	9/14/98	3 1 ug/L	<0 1	<0 1	3 1 ug/L	<0 1	<0 1	<0 1	
Fire Station/Storm drain	6/8/00	<330 ug/kg	<330	<330	<330	<330	<330	<330	



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



PROJECT City of Kalamazoo

DATE Feb. 9, 1988

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Feb. 9, 1988

Ms. Sandra Hines
Dept. of Finance
241 W. South Street
Kalamazoo, Mi. 49007-4796

Dear Ms. Hines,

As per your letter of February 4 concerning purchase order #38714 we are providing the following information:

Three invoices(6735, 6762, 6811) have been submitted and paid to us in the last year for your P.O.#38714 for a total of \$3410.00 for 62 samples.

Enclosed please find an invoice for 24 samples(\$1320) for PCB's which were sampled in November, December, January and February. This is the last invoice for this purchase order. If you have any questions please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosure

cc:Bruce Merchant, Dept. of Public Utilities



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Feb. 9, 1988

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results from the January and February 2 sampling periods. Also enclosed are the chain of custody forms for the above samples.

Also enclosed is a copy of our letter to your accounts payable department explaining the number of samples analyzed under purchase order #38714.

If you have any questions, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosures



SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PO#43111

LAB NO. 9961
JOB
DATE January 9, 1989

LOCATION COLLECTED Tert. Eff Kalamazoo WWTP

PRESERVATIVES USED -NONE

DATE COLLECTED -- December 15, 1988

TIME COLLECTED -- 700

DATE RECEIVED -- December 21, 1988

Test	Result	Unit
PCB-1016	<0.1	ug/L
PCB-1221	<0.1	ug/L
PCB-1232	<0.1	ug/L
PCB-1242	<0.1	ug/L
PCB-1248	<0.1	ug/L
PCB-1254	<0.1	ug/L
PCB-1260	<0.1	ug/L

PROJECT MANAGER

Lori Vachon
LORI VACHON

SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PO#43111

LAB NO. 9558
JOB
DATE January 10, 1989

LOCATION COLLECTED TEF 3368800

PRESERVATIVES USED -NONE

DATE COLLECTED -- December 1, 1988

TIME COLLECTED -- 700

DATE RECEIVED -- December 2, 1988

Test	Result	Unit
PCB-1016	<0.1	ug/L
PCB-1221	<0.1	ug/L
PCB-1232	<0.1	ug/L
PCB-1242	<0.1	ug/L
PCB-1248	<0.1	ug/L
PCB-1254	<0.1	ug/L
PCB-1260	<0.1	ug/L

PROJECT MANAGER Lori A. Vachon
LORI VACHON

SEG LABORATORIES, INC.

August 1, 1988

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for a sample submitted by Kalamazoo Water Reclamation Plant, received by SEG Laboratories, Inc. on July 20, 1988.

PO#: 43111

SEG Number: 77252

Tag: Tertiary
Outfall
12:30 P.M.
7/19/88

PCB-1016, ug/L	<0.1
PCB-1221, ug/L	<0.1
PCB-1232, ug/L	<0.1
PCB-1242, ug/L	<0.1
PCB-1248, ug/L	<0.1
PCB-1254, ug/L	<0.1
PCB-1260, ug/L	<0.1

Approved by

Lori A. Vachon
Lori A. Vachon

LAV/jp

SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 West Harrison
Kalamazoo, MI 49007

DATE 8/9/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari

PO# 43111

RE: Analytical results for a sample submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc. on July 20, 1988.
SEG Numbers this Billing: 77252

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 40.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

24333

INVOICE

SEG LABORATORIES, INC.

July 25, 1988

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attention: Mr. Nasim Ansari

Analytical results for a water sample submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc., on July 8, 1988.

POL# : #43111

SEG Number: 77110

Tag: KWR Tertiary OF
7/7/88

PCB-1016, ug/L	<0.1
PCB-1221, ug/L	<0.1
PCB-1232, ug/L	<0.1
PCB-1242, ug/L	<0.1
PCB-1248, ug/L	<0.1
PCB-1254, ug/L	<0.1
PCB-1260, ug/L	<0.1

*Analysis performed in accordance with USEPA Method 608.

Approved By Lori A. Vachon
Lori A. Vachon

LAV/blc

- SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, MI 49007

DATE 7/29/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari

PO# 43111

RE Analytical results for a water sample submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc. on July 8, 1988.
SEG Numbers this Billing: 77110

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 40.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

242

INVOICE

SEG LABORATORIES, INC.

July 1, 1988

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for a sample submitted by the Kalamazoo Water Reclamation Plant, Kalamazoo, Michigan, received by SEG Laboratories, Inc. on June 17, 1988.

PO#: 43111

SEG Number: 76472

Tag: Tertiary Outfall
6/16/88

PCB-1016, ug/L	<0.1
PCB-1221, ug/L	<0.1
PCB-1232, ug/L	<0.1
PCB-1242, ug/L	<0.1
PCB-1248, ug/L	<0.1
PCB-1254, ug/L	<0.1
PCB-1260, ug/L	<0.1

Approved by Lori A. Vachon
Lori A. Vachon

LAV/caf

SEG LABORATORIES, INC.

July 1, 1988

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for a sample submitted by the Kalamazoo Water Reclamation Plant, Kalamazoo, Michigan, received by SEG Laboratories, Inc. on June 6, 1988.

PO#: 43111

SEG Number: 75961

Tag: Tertiary Outfall
6/6/88

PCB-1016, ug/L	<0.1
PCB-1221, ug/L	<0.1
PCB-1232, ug/L	<0.1
PCB-1242, ug/L	<0.1
PCB-1248, ug/L	<0.1
PCB-1254, ug/L	<0.1
PCB-1260, ug/L	<0.1

Approved by Lori A. Vachon
Lori A. Vachon

LAV/caf

SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 West Harrison
Kalamazoo, MI 49007

DATE 7/1/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari

PO# 43111

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamzooo, MI, received by SEG Laboratories, Inc. on June 6, 1988.
SEG Numbers this Billing: 75961, 76472

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 80.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

24118

INVOICE

SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 West Harrison
Kalamazoo, MI 49007

DATE 6/29/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari

PO# 43111

RE. Analytical results for samples submitted by the City of Kalamazoo, MI, received by SEG Laboratories, Inc. on May 19, 1988.
SEG Numbers this Billing: 75682

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 40.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

24037

INVOICE

SEG LABORATORIES, INC.

June 21, 1988

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for samples submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on May 19, 1988.

PO#: 43111

SEG Number: 75682

Tag: **Grab**
7:30 AM
05/19/88

PCB-1016, ug/L	<0.1
PCB-1221, ug/L	<0.1
PCB-1232, ug/L	<0.1
PCB-1242, ug/L	<0.1
PCB-1248, ug/L	<0.1
PCB-1254, ug/L	<0.1
PCB-1260, ug/L	<0.1

Approved by Lori A. Vachon (84)
Lori A. Vachon

SEG LABORATORIES, INC.

April 27, 1988

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for samples submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on April 5, 1988.

PO#: 43111

SEG Number:	74719	74720	74721	74722
Tag:	Outfall	Municipal Sludge	Grit	War Ash
	04/05/88	03/31/88	03/31/88	03/31/88
PCB-1016	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg
PCB-1221	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg
PCB-1232	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg
PCB-1242	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg
PCB-1248	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg
PCB-1254	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg
PCB-1260	<0.1 ug/L	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/kg

SEG Number:	74723	74724	74725	74726
Tag:	Incinerator Ash	Industrial Primary Sludge PS #2	Parchment K POTW	Portage Creek K POTW
	03/31/88	03/31/88	03/30/88	03/30/88
PCB-1016	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L
PCB-1221	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L
PCB-1232	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L
PCB-1242	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L
PCB-1248	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L
PCB-1254	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L
PCB-1260	<0.1 ug/kg	<0.1 ug/kg	<0.1 ug/L	<0.1 ug/L

City of Kalamazoo
Analytical Results Continued
Attn: Mr. Ansari
April 27, 1988
Page Two

SEG Number:	74727	74728	74729
Tag:	Meredith 09088	Vicksburg	Richland K POTW 09188
	03/30/88	03/31/88	03/31/88
PCB-1016	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L
PCB-1221	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L
PCB-1232	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L
PCB-1242	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L
PCB-1248	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L
PCB-1254	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L
PCB-1260	<0.1 ug/L	<0.1 ug/L	<0.1 ug/L

Approved by Lori A. Vachon
Lori A. Vachon

LAV/jp

SEG LABORATORIES, INC.

August 25, 1988

City of Kalamazoo
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Dr. Nasim Ansari

Analytical results for samples submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on July 20, 1988.

PO#: 43111

SEG Number:	77253	77254	77255	77256
Tag:	James River	Inmont	Allied Paper	Upjohn-Bishop
	#JRC	20088	#APC	#UJB
	20088	8:35 A.M.	20088	20088
	8:10 A.M.		9:15 A.M.	10:10 A.M.
	7/18/88	7/18/88	7/18/88	7/18/88
PCB - 1016, ug/L	<0.1	<0.1	<0.1	<0.1
PCB - 1221, ug/L	<0.1	<0.1	<0.1	<0.1
PCB - 1232, ug/L	<0.1	<0.1	<0.1	<0.1
PCB - 1242, ug/L	<0.1	<0.1	<0.1	<0.1
PCB - 1248, ug/L	<0.1	<0.1	<0.1	<0.1
PCB - 1254, ug/L	<0.1	<0.1	<0.1	<0.1
PCB - 1260, ug/L	<0.1	<0.1	<0.1	<0.1

City of Kalamazoo
Analytical Results Continued
Attn: Dr. Nasim Ansari
August 25, 1988
Page Two

SEG Number:	77257
Tag:	Georgia Pacific #GEO 20088 10:55 A.M. 7/18/88
PCB - 1016, ug/L	<0.1
PCB - 1221, ug/L	<0.1
PCB - 1232, ug/L	<0.1
PCB - 1242, ug/L	<0.1
PCB - 1248, ug/L	<0.1
PCB - 1254, ug/L	<0.1
PCB - 1260, ug/L	<0.1

Approved by Lori A. Vachon
Lori A. Vachon

LAV/jp

INVOICE

Date: August 26, 1988

TO: City of Kalamazoo
1415 North Harrison
Kalamazoo, Michigan 49007

Attention: Dr. Nasim Ansari

RE: Analytical results for samples submitted by the City of Kalamazoo,
Michigan,, received by SEG Laboratories, Inc. on July 20, 1988.

PO#: 43111

SEG Number: 77253 (James River #JRC 20088)
77254 (Inmont #INM 20088)
77255 (Allied Paper #APC 20088)
77256 (Upjohn-Bishop #UJB 20088)
77257 (Georgia Pacific #GEO 20088)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB	5	\$ 40.00	\$ 200.00
		TOTAL AMOUNT DUE	\$ 200.00

SEG LABORATORIES, INC.

August 22, 1988

City of Kalamazoo
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Dr. Nasim Ansari

Analytical results for a sample submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on August 5, 1988.

POT: 43111

SEG Number: 77523

Tag: Tertiary Outfall
8/04/88

PCB - 1016, ug/L <0.1

PCB - 1221, ug/L <0.1

PCB - 1232, ug/L <0.1

PCB - 1242, ug/L <0.1

PCB - 1248, ug/L <0.1

PCB - 1254, ug/L <0.1

PCB - 1260, ug/L <0.1

Approved by


Lori A. Vachon

LAV/jp

SEG LABORATORIES, INC.

August 22, 1988

City of Kalamazoo
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Dr. Nasim Ansari

Analytical results for a sample submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on August 5, 1988.

POT: 43111

SEG Number: 77523

Tag: Tertiary Outfall
8/04/88

PCB - 1016, ug/L	<0.1
PCB - 1221, ug/L	<0.1
PCB - 1232, ug/L	<0.1
PCB - 1242, ug/L	<0.1
PCB - 1248, ug/L	<0.1
PCB - 1254, ug/L	<0.1
PCB - 1260, ug/L	<0.1

Approved by Lori A. Vachon
Lori A. Vachon

LAV/jp

CONFIRMATION OF VERBAL CORRESPONDENCE

DATE: SEPT. 9, 1988

TELEPHONE CONVERSATION

TIME: 4:05 PM

MEETING - LOCATION:

TALKED WITH: LORI VASHTON

REPRESENTING: S.E.G. LABORATORIES, INC.

SUBJECT: PCB Sample rec'd at their lab on 8-30-88.
(Tertiary Effluent)

COMMENTS: After clean-up procedure as specified
by U.S. EPA methodology, the result for the
above-mentioned sample was:

< 1.0 ug/l (ppb) with a note
attached that states there was sample matrix interference.
A hard copy result should be available on
Monday 9-12-88 or Tuesday 9-13-88.

ROUTE TO: NASIM ANSARI

FIRE

SIGNATURE:

Bruce E. Menard

SEG LABORATORIES, INC.

September 14, 1988

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

Analytical results for samples submitted by the City of Kalamazoo, Mi, received
by SEG Laboratories on August 30, 1988.

PO#:43111

SEG Number: 77964

Tag: TEF 243
7:40 AM

PCB-1016, ug/L <1*

PCB-1221, ug/L <1

PCB-1232, ug/L <1

PCB-1242, ug/L <1

PCB-1248, ug/L <1

PCB-1254, ug/L <1

PCB-1260, ug/L <1

* High detection limit due to matrix interference.

Approved by Lori A. Vachon (PFT)
Lori A. Vachon

LAV/MK
77964.Kaz

1120 May Street, Lansing, Michigan 48906 • (517) 374-6800 • CABLE "SNELL" • TELEX 229458
A Snell Environmental Group Company

SEG LABORATORIES, INC.

May 3, 1988

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for samples submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on April 28, 1988.

PO#: 43111

SEG Number:	75237	75238	75239
Tag:	James River Clarifier 7:50 A M.	Georgia Pacific Clarifier GEO 11688 10:30 A.M. 04/25/88	Inmont INM11788 - 04/25/88
PCB-1016, ug/L	<0.1	<0.1	<0.1
PCB-1221, ug/L	<0.1	<0.1	<0.1
PCB-1232, ug/L	<0.1	<0.1	<0.1
PCB-1242, ug/L	<0.1	<0.1	<0.1
PCB-1248, ug/L	<0.1	<0.1	<0.1
PCB-1254, ug/L	<0.1	<0.1	<0.1
PCB-1260, ug/L	<0.1	<0.1	<0.1

SEG Number:	75240	75241
Tag:	Allied Paper Clarifier APC 11788 04/26/88	Upjohn Bishop Rd. UJB11788 04/26/88
PCB-1016, ug/L	<0.1	<0.1
PCB-1221, ug/L	<0.1	<0.1
PCB-1232, ug/L	<0.1	<0.1
PCB-1242, ug/L	<0.1	<0.1
PCB-1248, ug/L	<0.1	<0.1
PCB-1254, ug/L	<0.1	<0.1
PCB-1260, ug/L	<0.1	<0.1

Approved by Lori A. Vachon
Lori A. Vachon

LAV/jp

1120 May Street, Lansing, Michigan 48906 • (517) 374-6800 • CABLE "SNELL" • TELEX 229458

A Snell Environmental Group Company

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

SAMPLERS:
(Signature)

Donald S. Hale

PURPOSE OF ANALYSIS:

Quarterly PCB's

No. 2771

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS	DATETIME RECEIVED BY: (Signature)	DATETIME
1	JAMES RIVER	JRC 11688	2-1L	4/25/88	7:50AM		H	CLARIFIER /		/PCB's
2	GEORGIA PACIFIC	GEO 11688	2-1L	4/25/88	10:30AM		H	CLARIFIER /		/PCB's
3	INMONT	INM 11788	2-1L	4/26/88	9:15AM		H	LIFT STATION /		/PCB's
4	ALLIED PAPER	APC 11788	2-1L	4/26/88	9:40AM		H	CLARIFIER /		/PCB's
5	UPJOHN	UJB 11788	2-1L	4/26/88	10:25AM		H	FLUME /		/PCB's

75237 - 41

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMUM		EPA METHOD 601	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER			
TSS		LEAD			
VSS		NICKEL			
NH ₃ -N		ZINC		EPA METHOD 602	
TOTAL P		SILVER			
ORTHO P		MERCURY			
GREASE/OIL		BERYLLOUM			
CHLORIDE		BARIUM			
CN - TOTAL				X OTHER PCB's	
CN - AMENABLE					

REMARKS:

SENT TO S.E.G.
LABS 4/27/88
ATTN: Lori Vachon

1 RELINQUISHED BY: (Signature)	DATE/TIME RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME RECEIVED BY: (Signature)	DATE/TIME

- SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

✓ 18 J 12388
INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

DATE 5/20/88
JOB NO 52960A
TERMS Net

Attn: Nasim Ansari PO# 43111

RE Analytical results for samples submitted by the City of Kalamazoo, MI, received by SEG Laboratories, Inc. on April 28, 1988.
SEG Numbers this Billing: 75237 - 75240

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 200.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

23818

INVOICE

INVOICE

Date: May 3, 1988

TO: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007
Attn: Nasim Ansari

RE: Analytical results for samples submitted by the City of Kalamazoo,
Michigan, received by SEG Laboratories, Inc., on April 28, 1988.

PO#: 43111

SEG NUMBER: 75237 (JRC 11688) 75240 (APC 11788)
75238 (Geo 11688) 75241 (UJB 11788)
75239 (INM 11788)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB/Water	5	\$ 40.00	\$ 200.00

TOTAL DUE: \$ 200.00

- SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1475 North Harrison
Kalamazoo, MI 49007

DATE 5/19/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari PO# 43111

RE:

Analytical results for samples submitted by City of Kalamazoo,
received by SEG Laboratories, Inc. on April 15, 1988.
SEG Numbers this Billing: 74719 - 74729

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 390.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

23800

INVOICE

INVOICE

Date: May 2, 1988

TO: Kalamazoo Water Reclamation Plant
1475 North Harrison
Kalamazoo, Michigan 49007

Attention: Mr. Nasim Ansari

RE: Analytical results for samples submitted by City of Kalamazoo, received by
SEG Laboratories, Inc. on April 15, 1988.

PO#: 43111

SEG Number:	74719 (Outfall)	74725 (Parchment)
	74720 (Municipal Sludge)	74726 (Portage Creek)
	74721 (Grit)	74727 (Meredith)
	74722 (War Ash)	74728 (Vicksburg)
	74723 (Incinerator Ash)	74729 (Richland)
	74724 (Industrial Primary Sludge)	

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB/s/Water	6	\$ 40.00	\$ 240.00
PCB's/Sludge	5	30.00	150.00
	TOTAL DUE		\$ 390.00

SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

Feb 5 1988
youth group
Terry

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

DATE 5/26/88
JOB NO 52960A
TERMS Net

Attn: Nasim Ansari

PO# 43111

RE: Analytical results for water samples submitted by City of Kalamazoo, MI, received by SEG Laboratories, Inc. on May 5, 1988.
SEG Numbers this Billing: 75336

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 40.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

23874

INVOICE

INVOICE

Date: May 19, 1988

TO: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007
Attn: Nasim Ansari

RE: Analytical results for water samples submitted by City of Kalamazoo,
Michigan, received by SEG Laboratories, Inc., on May 5, 1988.

PO#: 43111

SEG NUMBER: 75336 (Outfall)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB	1	\$ 40.00	\$ 40.00
TOTAL DUE:			\$ 40.00



Engineers • Planners • Consultants

REPLY TO:

- 1120 MAY STREET • LANSING, MI 48906 • (517) 374-6800
- 36 S. PENNSYLVANIA • INDIANAPOLIS, IN 46204-3628 • (317) 633 4120

MESSAGE

REPLY

TO [Mr. Raum Awas]
Kalamazoo Water Reclamation
Plant

DATE 5/9/88

— Enclosed please find the results
for your sample submitted on
5/5/88. We did not receive a
Chain of Custody form with this
set. If you have any questions,
please contact me at 517-374-6800

Sincerely,
Tom C. Tuckson

DATE

SIGNED

BY

Item # NR73 Wheeler Group Inc 1982

INSTRUCTIONS TO RECIPIENT
KEEP YELLOW COPY & SEND WHITE COPY

REACT

OPTION TO FILE VER
FILE INDEX FILE VR COPY RETURN WHITE COPY TO SENDER

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

SEG LABORATORIES, INC.

May 6, 1988

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007

Attn: Mr. Nasim Ansari

Analytical results for samples submitted by City of Kalamazoo, Michigan,
received by SEG Laboratories, Inc. on May 5, 1988.

PO#: 43111

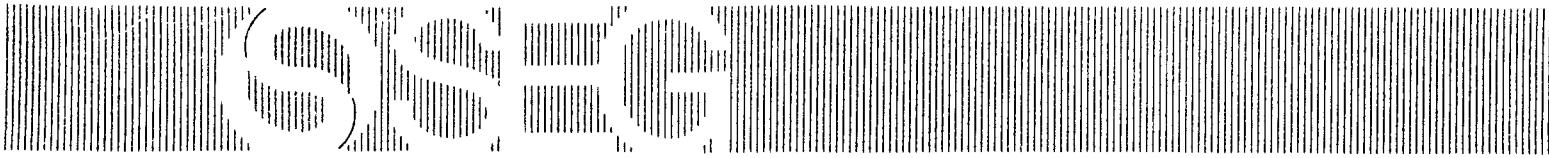
SEG Number: 75336

Tag: Kalamazoo
Water
Reclamation
Tertiary
Outfall
05/03/88

PCB-1016, ug/L	<0.1
PCB-1221, ug/L	<0.1
PCB-1232, ug/L	<0.1
PCB-1242, ug/L	<0.1
PCB-1248, ug/L	<0.1
PCB-1254, ug/L	<0.1
PCB-1260, ug/L	<0.1

Approved by Lori A. Vachon
Lori A. Vachon

LAV/jp



SEG LABORATORIES, INC.

July 5, 1985

Mr. Nasim Ansari
Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, Michigan 49007

Dear Mr. Ansari:

SEG Laboratories, Inc. will be pleased to provide the additional services requested by the Kalamazoo Water Reclamation Plant. A summary of the fee schedule has been provided below:

<u>Parameter</u>	<u>Cost/sample</u>
Total PCBs	\$ 40.00 **
Known Addition #1	30.00
Known Addition #2	30.00
Known Addition #3	30.00

To perform each "Known Addition" analysis, SEG will spike a sample at three different levels. The first sample spike will be at a concentration two (2) times the detection level (0.20 ug/L), the second spike will be at a concentration five (5) times the detection level (0.50 ug/L) and a third sample spike will be performed at a concentration ten (10) times the detection level (1.0 ug/L). All known addition results will be included in the final report of analysis. SEG Laboratories, Inc. will only proceed with the known addition analysis when expressly requested by the Kalamazoo Water Reclamation Plant.

If you have any questions or comments regarding this quotation or the analysis to be performed, please contact our office at 517/374-6800.

Respectfully submitted,



Lori A. Vachon
Laboratory Director

CHAIN OF CUSTODY RECORD

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
16-385-8157

SAMPLERS:
(Signature)

^{el} James McNamee

PURPOSE OF ANALYSIS:

PCB's

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
James McNamee	4/5/88 7am	Rebecca Verner	4/5/88 4:05				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

CHAIN OF CUSTODY RECORD

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
1415 N Harrison
Kalamazoo, Michigan 49007
616 385 8157

SAMPLERS
(Signature)

PURPOSE OF ANALYSIS

1 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	3 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Ronald D. Larson	3-31-88 3:00 pm	Karen Leonin	4/5/88 8:10 AM				
2 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	4 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
Karen Leonin	4/5/88 9:00 AM	Rebecca Verner	4/5/88 4:05 PM				

SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari P.O.#43111

PROJECT NUMBER

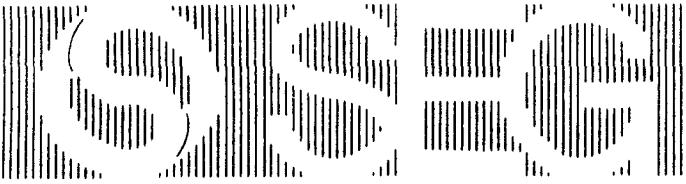
Location	Lab No	Time Sampled	Date Sampled	Date Received
Tertiary Effluent TEF 306880	9012	0	11/01/88	11/02/88
Tertiary Effluent TEF 3268800	9375	700	11/21/88	11/22/88

ANALYTICAL REPORT DATE REPORTED 12/05/88

TEST	UNITS	LAB NO. 9012	LAB NO. 9375
PCB-1016	ug/L	<1.0 <1	<1.0 <1
PCB-1221	ug/L	<1.0 <1	<1.0 <1
PCB-1232	ug/L	<1.0 <1	<1.0 <1
PCB-1242	ug/L	<1.0 <1	<1.0 <1
PCB-1248	ug/L	<1.0 <1	<1.0 <1
PCB-1254	ug/L	<1.0 <1	<1.0 <1
PCB-1260	ug/L	<1.0 <1	<1.0 <1

PROJECT MANAGER Lori Vachon
LORI VACHON

Called to fore. The results should be
< 0.1 ppb. corrected report will follow.
[Signature] 12/10/88



"YOUR PARTNER IN PROGRESS"

- SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, MI 49007

DATE 12/29/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari

PO# 43111

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc. on November 2, 1988.
SEG Numbers this Billing: 79012, 79375

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 80.00

INVOICE NO.

INCLUDE INVOICE NO. ON PAYMENT

25396

INVOICE

'YOUR PARTNER IN PROGRESS'

- SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, MI 49007

DATE 12/29/88
JOB NO 52960A
TERMS Net

L Attn: Mr. Nasim Ansari

PO# 43111

RE Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc. on November 2, 1988.
SEG Numbers this Billing: 79012, 79375

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 80.00

INVOICE NO

INCLUDE INVOICE NO. ON PAYMENT

25396

THIRD INVOICE

INVOICE

Date: December 20, 1988

TO: Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attention: Dr. Nasim Ansari

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, Michigan, received by SEG Laboratories, Inc. on November 2, 1988.

PO#: 43111

SEG Number: 79012 (Tertiary Effluent TEF 306880)
79375 (Tertiary Effluent TEF 3268800)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB's	2	\$ 40.00	\$ 80.00
		TOTAL AMOUNT DUE	\$ 80.00

INVOICE

Date: December 20, 1988

TO: Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attention: Dr. Nasim Ansari

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, Michigan, received by SEG Laboratories, Inc. on November 2, 1988.

PO#:

SEG Number: 79012 (Tertiary Effluent TEF 306880)
79375 (Tertiary Effluent TEF 3268800)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB's	2	\$ 40.00	\$ 80.00
		TOTAL AMOUNT DUE	\$ 80.00

CITY OF KALAMAZOO PURCHASE ORDER

P.O. NO. 43111

• INVOICE IN DUPLICATE TO
• ACCOUNTING DIVISION

241 W. SOUTH STREET
KALAMAZOO, MICHIGAN 49007

PURCHASE ORDER NUMBER
MUST APPEAR ON ALL
INVOICES, PACKAGES AND
PAPERS RELATIVE TO THIS
ORDER.

VENDOR: 261100
SEG ENGINEERS & CONSULT.
1120 MAY ST.
LANSING MI 489060000

SHIP TO: 0610
WASTEWATER ADMINI.
1415 N. HARRISON ST.
KALAMAZOO, MI. 49007

DEPARTMENT WASTEWATER ADMINI.	ORDER DATE 03/18/88	TERMS/P.O.B. net 30 del'd	REQ. NO. 0610-8-182
----------------------------------	------------------------	------------------------------	------------------------

ITEM	ACCOUNT DISTRIBUTION & DESCRIPTION	UNIT QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	5900564B200K5649909 247-14 PCB ANALYSES ON BOTH PLANT AND INDUSTRIAL EFFLUENT SAMPLES PER QUOTATION OF FEB. 22, 1988 (SEE ATTACHED BIDS AND MEMO) - FOR THE REMAINDER OF 1988	40	EA	120.00	4800.00
2	5900564B200K5649909 247-14 PCB ANALYSES ON SLUDGE SAMPLES	30	EA	30.00	900.00
CITY COMMISSION APPROVED 3/15/88 *****					
CONFIRMING ORDER DO NOT DUPLICATE *****					
<p>Balance as of 3-23-89 # 4,470.00 1550.00 B/L AS OF 2/27/89 \$ 300.50</p> <p>Partial Payment 3-28-89 #30.00 Inv #25922</p> <p><i>[Handwritten signatures]</i></p> <p>Nolen Asari</p>					
				TOTAL ▶	80.00 -5700.00

AUTHORIZED BY
PURCHASING AGENT STEVE HOFFNER, ACTING P.A.

RECEIVED BY: *[Signature]* Date *5-17-88*

RECE

JUN 09 1988

"YOUR PARTNER IN PROGRESS"

SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, MI 49007

DATE 12/29/88
JOB NO 52960A
TERMS Net

Attn: Mr. Nasim Ansari

PO# 43111

RE Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc. on November 2, 1988.
SEG Numbers this Billing: 79012, 79375

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 80.00

INVOICE

Date: December 20, 1988

JUN 09 1989

TO: Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attention: Dr. Nasim Ansari

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, Michigan, received by SEG Laboratories, Inc. on November 2, 1988.

PO#:

SEG Number: 79012 (Tertiary Effluent TEF 306880)
79375 (Tertiary Effluent TEF 3268800)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB's	2	\$ 40.00	\$ 80.00
		TOTAL AMOUNT DUE	\$ 80.00



REPLY TO:

 1120 MAY STREET • LANSING, MI 48906 • (517) 374-6800 36 S. PENNSYLVANIA • INDIANAPOLIS, IN 46204-3628 • (317) 633-4120

Engineers • Planners • Consultants

MESSAGE

TO Kalamazoo Water Reclamation PlantCAROL
BOYER

DATE _____

241 West South Street

Kalamazoo, Michigan 49007

DATE June 6, 1989

Dear Ms. Carol Boyer - Finance Dept.:

As we discussed by telephone this morning enclosed please find the copy of the invoice which our records indicate has not been paid. If you have any questions, please do not hesitate to contact me. Thank you for prompt attention.

Sincerely,

*Lori A. Vachon*BY Lori A. Vachon - Laboratory Director
Item # NR73 The Drawing Board Dallas Texas 75266 0429

© Wheeler Group Inc. 1982

INSTRUCTIONS TO SENDER

REPLY

JUN 09 1989

SIGNED _____

INSTRUCTIONS TO RECEIVER



REPLY TO:

 1120 MAY STREET • LANSING, MI 48906 • (517) 374-6800 36 S. PENNSYLVANIA • INDIANAPOLIS, IN 46204-3628 • (317) 633-4120

Engineers • Planners • Consultants

345th

Recim,

Need help with this invoice
Po 43111 is closed. What Po
Should this be charged to?

MTRV X 30 (

To 43111

Recim 113

MESSAGE

TO Kalamazoo Water Reclamation Plant(CAROL
Boyer)241 West South StreetKalamazoo, Michigan 49007DATE June 6, 1989Dear Ms. Carol Boyer - Finance Dept.:

As we discussed by telephone this morning enclosed please find the copy of the invoice which our records indicate has not been paid. If you have any questions, please do not hesitate to contact me. Thank you for prompt attention.

Sincerely,Lori A. VachonBY Lori A. Vachon - Laboratory Director
Item # NR73 The Drawing Board, Dallas, Texas 75266-0429

REPLY

DATE _____

JUN 09 1989

SIGNED _____

JUN 09 1989

INVOICE

Date: December 20, 1988

TO: Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Attention: Dr. Nasim Ansari

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation
Plant, Kalamazoo, Michigan, received by SEG Laboratories, Inc. on
November 2, 1988.

PO#:

SEG Number: 79012 (Tertiary Effluent TEF 306880)
79375 (Tertiary Effluent TEF 3268800)

<u>Analysis</u>	<u>Number</u>	<u>Charge</u>	<u>Total</u>
PCB's	2	\$ 40.00	\$ 80.00
		TOTAL AMOUNT DUE	\$ 80.00

JUN 09 1989

"YOUR PARTNER IN PROGRESS"

- SEG Engineers and Consultants, Inc.
 SEG Laboratories, Inc.

INVOICE

1120 MAY STREET • LANSING, MICHIGAN 48906 • PHONE (517) 374-6800
36 S. PENNSYLVANIA • SUITE 360 • INDIANAPOLIS, INDIANA 46204 • (317) 633-4120

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, MI 49007

DATE 12/29/88
JOB NO. 52960A
TERMS Net

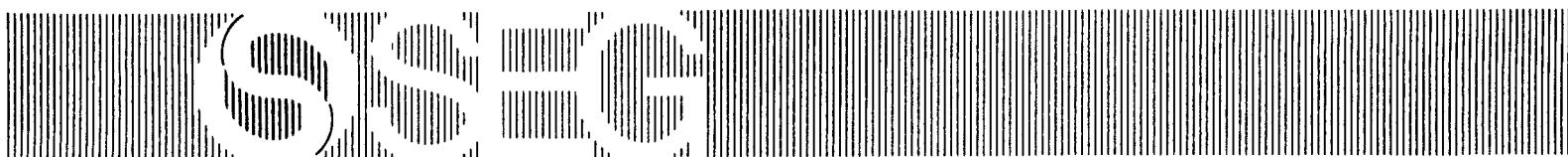
Attn: Mr. Nasim Ansari

PO# 43111

RE: Analytical results for samples submitted by Kalamazoo Water Reclamation Plant, Kalamazoo, MI, received by SEG Laboratories, Inc. on November 2, 1988.
SEG Numbers this Billing: 79012, 79375

See attached for details of invoice.

TOTAL DUE THIS INVOICE: \$ 80.00



SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PO#43111

PROJECT NUMBER

Location	Lab No	Time Sampled	Date Sampled	Date Received
Tertiary Effluent TEF 306880	9012	0	11/01/88	11/02/88
Tertiary Effluent TEF 3268800	9375	700	11/21/88	11/22/88

ANALYTICAL REPORT
DATE REPORTED 02/06/89

TEST	UNITS	LAB NO. 9012	LAB NO. 9375
PCB-1016	ug/L	<0.1	<0.1
PCB-1221	ug/L	<0.1	<0.1
PCB-1232	ug/L	<0.1	<0.1
PCB-1242	ug/L	<0.1	<0.1
PCB-1248	ug/L	<0.1	<0.1
PCB-1254	ug/L	<0.1	<0.1
PCB-1260	ug/L	<0.1	<0.1

PROJECT MANAGER

Lori Vachon
LORI VACHON

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Marty Knop

Project No.: 891028
Client No.: 1973
Project Date: 6/02/89
Date Promised: 6/23/89
Date Reported: 6/16/89
PO#: 45285

Project Desc.: PCB & Dioxin analyses of two wastewater samples.

Sample No.: 891028-01

Rec'd on: 6/02/89

Sample ID: Filter Press Cake Leachate

Dioxin (2,3,7,8-TCDD)
PCB

<0.05 ug/L
<0.1 ug/L

X 1st group

Sample No.: 891028-02

Rec'd on: 6/02/89

Sample ID: Incinerator Ash Leachate

Dioxin (2,3,7,8-TCDD)
PCB

<0.05 ug/L
<0.1 ug/L

Respectfully submitted,

KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

WHB/mcr

CHAIN OF CUSTODY RECORD

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

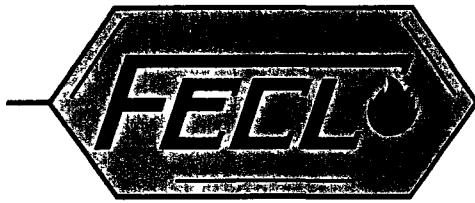
SAMPLERS: (Signature)	Matt Keng	PURPOSE OF ANALYSIS:	PCB, DIOXIN ANALYSIS
--------------------------	-----------	----------------------	----------------------

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Mart King</i>	6/2/89 11:45 AM	<i>Kathy Barnes</i>	6/2/89 11:46				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Kathy Barnes</i>	6/2/89 12:50 PM	<i>Rzeplowski</i>	6/2/89 12:50				

REMARKS: SAMPLE DATE: 3/30/89

LENSCHATE COMPLETION DATE: 6/2/89

891028 4/2189 MCR



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

December 21, 1989

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3487-89-E1

Samples collected by:
Tammy Williams

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
12-13-89 11:00 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3487-89-E1
Tag: Tert. Eff TE34189
Container: Glass Jars
Sample Type: Liquid
Preservation: None
Sampling date/time: 12-07-89 7:00 a.m.


Analytical Laboratory Report
City of Kalamazoo
FECL #: 3487-89-E1
December 21, 1989
Page Three

FECL #:

3487-89-E1

Tag:

Tert. Eff TE 34189

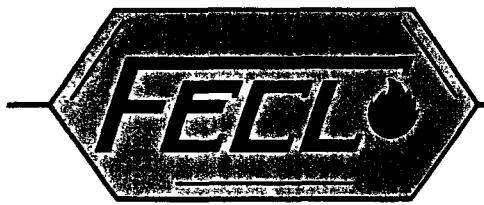
PCB

<0.0001 mg/l

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/ab



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

December 28, 1989

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3509-89-E1

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Samples collected by:

Penny Manderfuel

Date/time samples submitted:
12-20-89 2:15 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3509-89-E1

Tag: Tert. Eff TE16689

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 12-20-89



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3509-89-E1
December 28, 1989
Page Two

FECL #:
Tag:

3509-89-E1
Tert. Eff TE 16689

PCB

<0.0001 mg/l



A handwritten signature in black ink, appearing to read "V.F. Murshak".

Violetta F. Murshak
Laboratory Manager

VFM/ra



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

December 6, 1989

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3379-89-E1

Samples collected by:

Tammy Williams

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:

11-20-89 2:34 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3379-89-E1

Tag: Tert. Eff TE32189

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 11-17-89



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3379-89-E1
December 6, 1989
Page Three

FECL #: 3379-89-E1
Tag: Tert. Eff TE 32189
PCB <0.0001 mg/l

Violetta F. Murshak, RA

Violetta F. Murshak
Laboratory Manager

VFM/ab

CHAIN OF CUSTODY RECORD

Nº 0031

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS
(Signature)

PURPOSE OF ANALYSIS:

1 RELINQUISHED BY: (Signature)	DATE/TIME <u>12/26/81</u>	RECEIVED BY: (Signature)	DATE/TIME <u>12:30 pm</u>	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DA
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DA

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

January 5, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3528-89-E1

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Samples collected by:

Penny Manderfuel

Date/time samples submitted:
01-02-90 12:45 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3528-89-E1
Tag: Tert. Eff TE16689
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 12-28-89



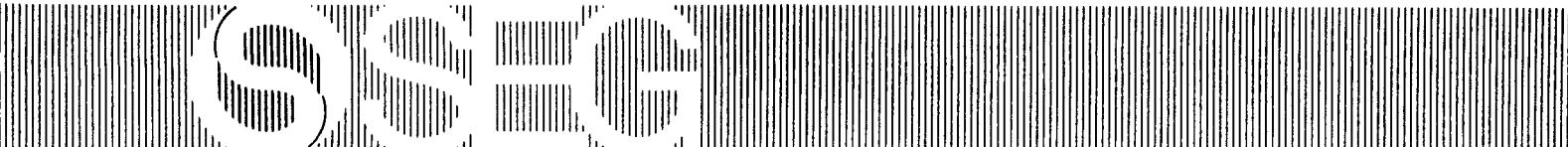
Analytical Laboratory Report
City of Kalamazoo
FECL #: 3528-89-E1
January 5, 1990
Page Two

FECL #: 3528-89-E1
Tag: Tert. Eff TE 16689

PCB <0.0001 mg/l

V.F. Murshak

Violetta F. Murshak
Laboratory Manager



SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PD#43111

LAB NO. 1253
JOB
DATE February 12, 1989

LOCATION COLLECTED TEF 0038900

PRESERVATIVES USED -NONE

DATE COLLECTED -- January 3, 1989

TIME COLLECTED -- 730

DATE RECEIVED -- January 5, 1989

Test	Result	Unit
PCB-1016	<0.1	ug/L
PCB-1221	<0.1	ug/L
PCB-1232	<0.1	ug/L
PCB-1242	<0.1	ug/L
PCB-1248	<0.1	ug/L
PCB-1254	<0.1	ug/L
PCB-1260	<0.1	ug/L

PROJECT MANAGER

Lori Q. Vachon
LORI VACHON


SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PD#43111

LAB NO. 1691
JOB
DATE February 12, 1989

LOCATION COLLECTED Tertiary Effluent Tef 01789

PRESERVATIVES USED -NONE

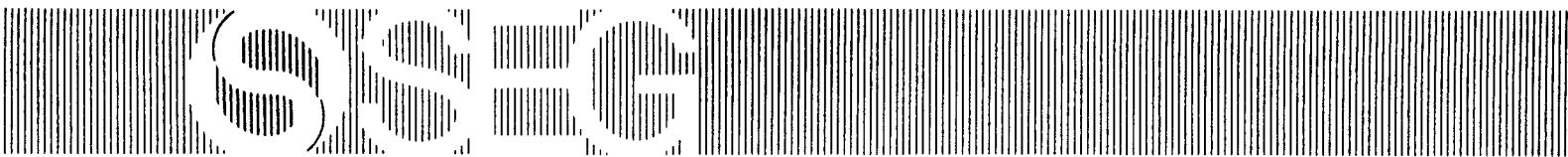
DATE COLLECTED -- January 17, 1989

TIME COLLECTED -- 0

DATE RECEIVED -- January 17, 1989

Test	Result	Unit
PCB-1016	<0.1	ug/L
PCB-1221	<0.1	ug/L
PCB-1232	<0.1	ug/L
PCB-1242	<0.1	ug/L
PCB-1248	<0.1	ug/L
PCB-1254	<0.1	ug/L
PCB-1260	<0.1	ug/L

PROJECT MANAGER Lori Vachon
LORI VACHON



SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PO#43111

LAB NO. 2342
JOB
DATE March 9, 1989

LOCATION COLLECTED Tertiary Effluent TEF 03289

PRESERVATIVES USED -NONE

DATE COLLECTED -- February 1, 1989

TIME COLLECTED --- 0

DATE RECEIVED -- February 2, 1989

Test	Result	Unit
PCB-1016	<0.1	ug/L
PCB-1221	<0.1	ug/L
PCB-1232	<0.1	ug/L
PCB-1242	<0.1	ug/L
PCB-1248	<0.1	ug/L
PCB-1254	<0.1	ug/L
PCB-1260	<0.1	ug/L

PROJECT MANAGER

Lori A Vachon
LORI VACHON

SEG LABORATORIES, INC.

SEG LABORATORIES, INC.
1120 MAY STREET
LANSING, MI 48906
PHONE - 517-374-6800

Kalamazoo Water Reclamation Plant
1415 North Harrison
Kalamazoo, Michigan 49007
Dr. Nasim Ansari PO#43111

LAB NO. 2628
JOB
DATE March 9, 1989

LOCATION COLLECTED Tertiary Effluent TEF 04689

PRESERVATIVES USED -NONE

DATE COLLECTED -- February 15, 1989

TIME COLLECTED -- 700

DATE RECEIVED -- February 16, 1989

Test	Result	Unit
PCB-1016	<0.1	ug/L
PCB-1221	<0.1	ug/L
PCB-1232	<0.1	ug/L
PCB-1242	<0.1	ug/L
PCB-1248	<0.1	ug/L
PCB-1254	<0.1	ug/L
PCB-1260	<0.1	ug/L

PROJECT MANAGER Lori C. Vachon
LORI VACHON

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Project No.: 891255
Client No.: 1046
Project Date: 6/29/89
Date Promised: 7/20/89
Date Reported: 7/21/89
PO#: 45295

Project Desc.: Dioxin & PCB analyses of two aqueous samples.

Sample No.: 891255-01 Rec'd on: 6/29/89
Sample ID: Filter Press Cake Leachate, 6/12/89

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB <0.1 ug/L

Sample No.: 891255-02 Rec'd on: 6/29/89
Sample ID: Incinerator Ash Leachate, 6/12/89

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB <0.1 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received from client.

Respectfully submitted,

KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

WHB/mcr

CITY OF KALAMAZOO PUBLIC UTILITIES LABORATORY
ATOMIC ABSORPTION REPORT OF ANALYTICAL RESULTS

REPORTED RESULTS

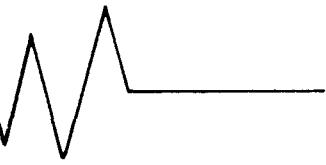
BATCH I.D.: HC
SAMPLE UNITS: ug/L

SAMPLE ID	Cd	Cr	Cu	Pb	Ni	Zn	Ag	Hg
<u>QUALITY CONTROL</u>								
QC DGN BLK HC	0.01	10.6	9	10.5	3.2	7	0.17	----
QC WP287TM1 HC*	26.0	104	96	101	94.7	98	----	----
QC WS378cn5 HC*	4.68	21.3	----	29.5	----	----	51.1	----
BLANK _f 1%HNO ₃	<0.20	<2.0	<20	<2.0	<5.0	<10	<0.50	----
WS378cn5 dfv HC	4.2	26.4	----	<5.0	----	45.9	----	----
WP287TM1 dfv HC	25.3	107	----	110	94.3	----	<0.50	----
APC 171 89 DUP*	<0.20	<2.0	21	<10	<5.0	28	----	<0.50
AFC 172 89 DUP*	0.45	130	643	32	3470	159	<0.50	<0.50
<u>PERFORMANCE PAPER CO.</u>								
APC 171 89*	<0.20	<2.0	34	<10	<5.0	32	----	<0.50
APC 172 89*	1.2	<2.0	20	<10	<5.0	12	----	<0.50
APC 173 89*	0.46	<2.0	22	<10	<5.0	<10	----	<0.50
APC 174 89*	<0.20	<2.0	<20	<10	<5.0	<10	----	<0.50
<u>ALLIED FINISHING CORP.</u>								
AFC 172 89*	0.52	130	596	27	3440	158	<0.50	<0.50
AFC 173 89*	0.29	58	655	44	306	159	<0.50	<0.50
AFC 174 89*	0.30	105	580	37	306	188	<0.50	<0.50
AFC 170 89 B	<0.20	6.0	<20	<2.0	<5.0	<10	<0.50	<0.50
<u>LANDSCAPE FORMS</u>								
LSF 172 89*	0.35	2.0	<20	<10	<5.0	122	<0.50	<0.50
LSF 173 89*	0.21	25	117	<10	20	782	<0.50	<0.50
LSF 174 89*	<0.20	<2.0	<20	<10	<5.0	145	<0.50	<0.50
LSF 170 89 B	<0.20	4.1	<20	<2.0	<5.0	<10	<0.50	<0.50
<u>TEXTILE SERVICES</u>								
TEX 174 89*	0.40	<2.0	236	<10	<5.0	53	<0.50	----
<u>KALAMAZOO STAMP & DIE</u>								
KSG 170 89*	0.58	2.4	42	<10	----	384	<0.50	----
<u>KALAMAZOO WATER RECLAMATION PLANT</u>								
WATER PRESSURE (FPC) & INCINERATORASH/LEACHATES								
FPC 163 89-L	<0.20	11	<20	2.1	<5.0	<10	<0.50	<0.50
	Arsenic = <10ug/L		Selenium = <10ug/L		Barium = 182			
INA 177 89-L	<0.20	<2.0	<20	<2.0	<5.0	<10	<0.50	<0.50
	Arsenic = <10ug/L		Selenium = <10ug/L		Barium = 33			
FPC 089 89-L	<0.20	<2.0	<20	<2.0	<5.0	<10	<0.50	<0.50
	Arsenic = 11 ug/L		Selenium = <10ug/L		Barium = 42			
INA 089 89-L	<0.20	21	<20	<2.0	<5.0	15	<0.50	<0.50
	Arsenic = <10ug/L		Selenium = <10ug/L		Barium = 293			

*Samples are QC DGN BLK XX corrected. QC DGN BLK XX is the digestion blank for this batch of digested samples.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

Project No.: 892076
Client No.: 1129
Project Date: 10/12/89
Date Promised: 11/02/89
Date Reported: 10/31/89
PO#: 45285

Project Desc.: Analysis of two aqueous samples.

Sample No.: 892076-01 Rec'd on: 10/12/89
Sample ID: Filter press cake-leachate, FPC 20589-L

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Sample No.: 892076-02 Rec'd on: 10/12/89
Sample ID: Incinerator ash-leachate, INA 20589-L

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.

Respectfully submitted,

KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

WHB/mcr

cc: Mr. Ken Leanin

CHAIN OF CUSTODY RECORD

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS
(Signature)

PURPOSE OF ANALYSIS:

LAWFILL DISPOSAL REQUIREMENT

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Jammy Williams</i>	10/12/89 AM	10:23 Rzepkowski	10/14/89 AM	10:22			
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS: PLEASE REPORT RESULTS TO: KEN LEANIN, LABORATORY SUPERVISOR, 385-8157

892076 MCR

North Branch Draw

Analytical Laboratory Report
City of Kalamazoo
FECL #: 3916-90-E1-5
April 5, 1990 (Revised Report)
Page Two

FECL #:	3916-90-E1	3916-90-E2
Tag:	NL1 07190	NL2 07190
PCB (Liquid)	<0.0001 mg/l	<0.0001 mg/l
PCB (Sediment)	<0.1 mg/kg	_____
FECL #:	3916-90-E3	3916-90-E4
Tag:	NL3 07190	NL4 07190
PCB (Liquid)	<0.0001 mg/l	<0.0001 mg/l
PCB (Sediment)	<0.1 mg/kg	<0.1 mg/kg
FECL #:	3916-90-E5	
Tag:	NL5 07190	
PCB (Liquid)	<0.0001 mg/l	

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/ra



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

FECL FAX Transmission Report

To..... NASIM ANSARI

Company..... CITY OF KALAMAZOO

Fax Number..... (616) 385-8152

Number of Pages..... 0 (including cover)

Message..... RECORDED

From..... 12HNY14215X

Date..... 1/21/97 1:15

FECL Fax number..... (517) 332-0167



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

April 5, 1990

(Revised Report - Replaces Report of April 2, 1990)

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3916-90-E1-5

Samples collected by:

Donald S. Hale

Samples analyzed by: J. Phifer

Date/time samples submitted:

Analyses requested by: Nasim Ansari

03-19-90 1:11 p.m.

Code: 1010-289-8193-G2991000

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Quarterly PCB

Samples collected:

FECL #: 3916-90-E1

FECL #: 3916-90-E4

Tag: NL1 07190

Tag: NL4 07190

Container: Glass Jar

Container: Glass Jar

Sample Type: Liquid

Sample Type: Liquid

Preservation: None

Preservation: None

Sampling date/time: 03-12-90

Sampling date/time: 03-12-90

FECL #: 3916-90-E2

FECL #: 3916-90-E5

Tag: NL2 07190

Tag: NL5 07190

Container: Glass Jar

Container: Glass Jar

Sample Type: Liquid

Sample Type: Liquid

Preservation: None

Preservation: None

Sampling date/time: 03-12-90

Sampling date/time: 03-12-90

FECL #: 3916-90-E3

Tag: NL3 07190

Container: Glass Jars

Sample Type: Liquid

Preservation: None

Sampling date/time: 03-12-90

Analytical Laboratory Report
City of Kalamazoo
FECL #: 5762-90-E1-6
November 30, 1990 (Revised Report)
Page Two

FECL #:	5762-90-E1	5762-90-E2	5762-90-E3
Tag:	Tert Eff TE30590	Ind Inf II30590	Pri Inf PI30590

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.0001 mg/l
-----	--------------	--------------	--------------

FECL #:	5762-90-E4	5762-90-E5	5762-90-E6
Tag:	DSE Cake DSEC30590	Belt Press Cake BPC30590	Inc Ash IA30590

Organic

PCB	11.7 mg/kg*+	0.085 mg/kg**+	2.4 mg/kg**+
-----	--------------	----------------	--------------

Metal

Mercury	2.32 mg/kg+	3.22 mg/kg+	3.19 mg/kg+
---------	-------------	-------------	-------------

* Mixed PCB's

+ Analyzed on a dry weight basis.

V. F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/bph

CITY OF KALAMAZOO
CAL REPORT# 10422

SAMPLES RECEIVED 11/14/90

PAGE 3

05
LAB# 9230626 INCINERATOR ASH IA 31~~3~~90B
LAB# 9230627 BELT PRESS CAKE BPC 31~~3~~90B 305
LAB# 9230628 DSE FILTER PRESS CAKE DSE FPC 31~~3~~90B

LAB#	9230626	9230627	9230628
UNITS	mg/kg	mg/kg	mg/kg
Mercury, Total	< 0.01	0.34	0.29

City of Kalamazoo

INTER-OFFICE MEMO

To: Nasim Ansari, QC/QA Officer
From: Ken Leanin, Lab Supervisor *Ken*
Date: December 7, 1990
Subject: PCB Analyses

On 11-1-90 the lab sent a series of samples to FECL for PCB and Hg analyses. The samples included DSE Cake, Belt Press Cake, and Incinerator Ash. On 11-14-90, a portion of the same samples were inadvertently sent to Canton Labs for Hg. analyses. Attached are copies of the reports from the two labs for the same sample. Please note the serious discrepancy between the Hg level determinations of both the labs. Can you please check into this?

CITY OF KALAMAZOO
CAL REPORT# 10422

SAMPLES RECEIVED 11/14/90

PAGE 1

11/14/90

LAB# 9230621 PRIMARY INFLUENT PI 31890
LAB# 9230622 INDUSTRIAL INFLUENT II31890

=====

LAB# UNITS	9230621 ug/l	9230622 ug/l
<hr/>		
PCB'S BY AROCHLOR		
PCB-1016	< 1.0	< 1.0
PCB-1221	< 1.0	< 1.0
PCB-1232	< 1.0	< 1.0
PCB-1242	3.3	< 1.0
PCB-1248	< 1.0	< 1.0
PCB-1254	< 1.0	< 1.0
PCB-1260	< 1.0	< 1.0
PCB-1262	< 1.0	< 1.0
PCB, Total	3.3	< 1.0

CITY OF KALAMAZOO
CAL REPORT# 10422

SAMPLES RECEIVED 11/14/90

PAGE 2

LAB# 9230623 INCINERATOR ASH IA 31890

LAB# 9230624 BELT PRESS CAKE BPC 31890

LAB# 9230625 DSE FILTER PRESS CAKE DSE FPC 31890

LAB# UNITS	9230623 mg/kg	9230624 mg/kg	9230625 mg/kg
Mercury, Total	< 0.01	0.13	0.24
PCB'S BY AROCHLOR			
PCB-1016	< 0.1	< 0.1	< 0.1
PCB-1221	< 0.1	< 0.1	< 0.1
PCB-1232	< 0.1	< 0.1	< 0.1
PCB-1242	< 0.1	< 0.1	< 0.1
PCB-1248	< 0.1	< 0.1	< 0.1
PCB-1254	< 0.1	< 0.1	< 0.1
PCB-1260	< 0.1	< 0.1	< 0.1
PCB-1262	< 0.1	< 0.1	< 0.1
PCB, Total	< 0.1	< 0.1	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 10422

SAMPLES RECEIVED 11/14/90

PAGE 3

LAB# 9230626 INCINERATOR ASH IA 31890B
LAB# 9230627 BELT PRESS CAKE BPC 31890B
LAB# 9230628 DSE FILTER PRESS CAKE DSE FPC 31890B

=====

LAB#	9230626	9230627	9230628
UNITS	mg/kg	mg/kg	mg/kg
Mercury, Total	< 0.01	0.34	0.29

CITY OF KALAMAZOO
CAL REPORT# 10972

SAMPLES RECEIVED 12/14/90

PAGE 1

12-14-90
LAB# 9240957 PRIMARY INFLUENT PI 34890
LAB# 9240958 INDUSTRIAL INFLUENT II 34890

=====

LAB# UNITS	9240957 ug/l	9240958 ug/l
PCB'S BY AROCHLOR		
PCB-1016	< 0.1	< 0.1
PCB-1221	< 0.1	< 0.1
PCB-1232	< 0.1	< 0.1
PCB-1242	< 0.1	< 0.1
PCB-1248	< 0.1	< 0.1
PCB-1254	0.11	< 0.1
PCB-1260	< 0.1	< 0.1
PCB-1262	< 0.1	< 0.1
PCB, Total	0.11	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 10972

SAMPLES RECEIVED 12/14/90

PAGE 2

LAB# 9240959 INCINERATOR ASH IA 34790
 LAB# 9240960 BELT PRESS CAKE BPC 34790
 LAB# 9240961 DSE PRESS CAKE DSEPC 34790

LAB# UNITS	9240959 mg/kg	9240960 mg/kg	9240961 mg/kg
Mercury, Total	< 0.01	0.25	0.50
PCB'S BY AROCHLOR			
PCB-1016	< 0.5	< 0.5	< 0.5
PCB-1221	< 0.5	< 0.5	< 0.5
PCB-1232	< 0.5	< 0.5	< 0.5
PCB-1242	< 0.5	< 0.5	< 0.5
PCB-1248	< 0.5	< 0.5	< 0.5
PCB-1254	< 0.5	< 0.5	< 0.5
PCB-1260	< 0.5	< 0.5	< 0.5
PCB-1262	< 0.5	< 0.5	< 0.5
PCB, Total	< 0.5	< 0.5	< 0.5
Pentachlorophenol	< 1.0	110	11

CHAIN OF CUSTODY RECORD

Nº 001882

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

REMARKS: Canton Labs.

PC B on all samples Hg on Incinerator Ash Bolt Press Cake & DSE Press Cake

QA / QC COMPILATIONS

*% of SPIKE RECOVERED = [(OBSERVED CONC. of SPIKED SAMPLE - MEAN)/(FINAL SPIKE CONC.)] X 100%

CAL

Canton Analytical Laboratory, Inc.

ENVIRONMENTAL ANALYSIS

December 21, 1990

CITY OF KALAMAZOO
Wastewater Administration
1415 North Harrison Street
Kalamazoo, Michigan 49007

ATTENTION: Nasim Ansari

RE: CAL Report #10753
5 samples picked-up 12-5-90

P.O.#50078

Dear Mr. Ansari:

The sample (s) we received from you has/have been analyzed as requested. The results are compiled in the enclosed report.

It is a pleasure to be of assistance to you. Please contact us if you have questions concerning any aspect of this work.

Very truly yours,

CANTON ANALYTICAL LABORATORY, INC.

Eric L. Flora
Eric L. Flora
QA/QC Coordinator

ELF/wh

CAL

Canton Analytical Laboratory, Inc.

ENVIRONMENTAL ANALYSIS

December 21, 1990

CITY OF KALAMAZOO
Wastewater Administration
1415 North Harrison Street
Kalamazoo, Michigan 49007

ATTENTION: Nasim Ansari

RE: CAL Report #10753
5 samples picked-up 12-5-90

P.O.#50078

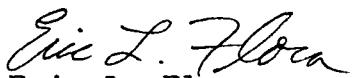
Dear Mr. Ansari:

The sample (s) we received from you has/have been analyzed as requested. The results are compiled in the enclosed report.

It is a pleasure to be of assistance to you. Please contact us if you have questions concerning any aspect of this work.

Very truly yours,

CANTON ANALYTICAL LABORATORY, INC.


Eric L. Flora
QA/QC Coordinator

ELF/wh

QA / QC COMPILATIONS

*% of SPIKE RECOVERED = [(OBSERVED CONC. of SPIKED SAMPLE - MEAN)/(FINAL SPIKE CONC.)] X 100%

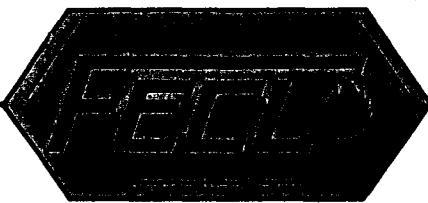
Canton Analytical Laboratory, Inc.
(313) 483-7430 FAX (313) 545-1541

City of Kalamazoo
INTER-OFFICE MEMO

To: All General Chemistry Lab Staff
From: Theresa Wright, Sr. Chemist
Date: December 20, 1990
Subject: Updates for TE samples

Good news! The chlorination/dechlorination facilities are in place and we can resume the collection of Tertiary Effluent at the sampler for the CN⁻ test. (During the interim, we had been collecting Secondary Effluent.)

More work too! We are to begin collection of the Tertiary Effluent at the outfall on a daily basis. Use a standard BOD bottle and collect the sample at the same time and place as the pH and Fecal samples. Keep an airtight seal on the chlorine sample. The analysis should be run ASAP using the Orion Meter and chlorine probe.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

February 28, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3795-90-E1-4

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 49069

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Quarterly PCB

Samples collected:

FECL #: 3795-90-E1
Tag: James River JRC 05290
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 02-21-90

FECL #: 3795-90-E4
Tag: Upjohn UJB 05290
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 02-21-90

FECL #: 3795-90-E2
Tag: Inmont INM 05290
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 02-21-90

FECL #: 3795-90-E3
Tag: Georgia Pacific GEO 05290
Container: Glass Jars
Sample Type: Liquid
Preservation: None
Sampling date/time: 02-21-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3795-90-E1-4
February 28, 1990
Page Two

FECL #:	3795-90-E1	3795-90-E2
Tag:	James River JRC 05290	Inmont INM 05290

PCB	<0.1 ug/l	<0.1 ug/l
-----	-----------	-----------

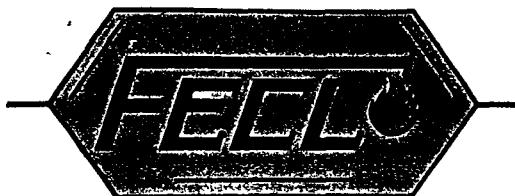
FECL #:	3795-90-E3	3795-90-E4
Tag:	Georgia Pacific GEO 05290	Upjohn UJB UJB 05290

PCB	<0.1 ug/l	<0.1 ug/l
-----	-----------	-----------

V. F. Murshak/RM

Violetta F. Murshak
Laboratory Manager

VFM/ab



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

January 8, 1991

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 6082-90-E1

Samples collected by:

Unknown

Samples analyzed by: P. Goergen, J. Blaszczyk

Date/time samples submitted:

Analyses requested by: N. Ansari

12-07-90

PO#: 49069

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 6082-90-E1

16.
JAN 15
1991
FIRE
LAB

Tag: TE 34090 Tert. Eff.

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 12-06-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 6082-90-E1
January 8, 1991
Page Two

FECL #: 6082-90-E1
Tag: TE 3490
Tert. Eff.

Organic

PCB 0.028 mg/l

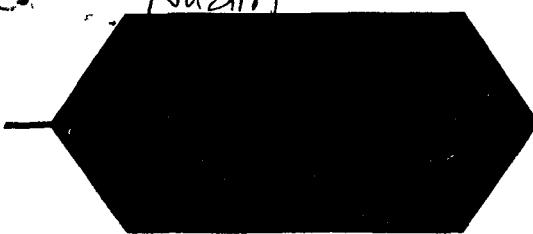
Naphthalene <0.01 mg/l

* This is a mixed PCB of 1016, 1221, 1232. Calculated by 1221.

V.F. Murshak/xn

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

January 3, 1991

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 6194-90-E1

Samples analyzed by: P. Goergen

Analyses requested by: N. Ansari

FO#: 49069

Samples collected by:

J. Bragg

Date/time samples submitted:

12-27-90 9:30 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 6194-90-E1

Tag: TE 34890 Tertiary Effl.

Container: Glass Jars

Sample Type: Liquid

Preservation: None

Sampling date/time: 12-14-90

MAILED
REF: 111-01
91 JAN - 1

13
Analytical Laboratory Report

City of Kalamazoo

FECL #: 6194-90-E1

January 3, 1991

Page Two

FECL #: 6194-90-E1
Tag: TE 34890
Tertiary Effl.

Organic

PCB 0.0033 mg/l*

* This is a mixed PCB of 1254 & 1221 Calculated by 1254.

REC'D
V.F.
1-7-91

V.F. Murshak/kf

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

August 20, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4935-90-E1

Samples collected by:

Joyce Raines

Samples analyzed by: P. Goergen
Analyses requested by: Nasim Ansari
PO#: Verbal

Date/time samples submitted:
08-06-90 5:15 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4935-90-E1
Tag: Tertiary Effluent TE21590
Container: Glass Jars
Sample Type: Liquid
Preservation: None
Sampling date/time: 08-03-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 4935-90-E1
August 20, 1990
Page Two

FECL #: **4935-90-E1**
Tag: Tertiary Effluent TE21590

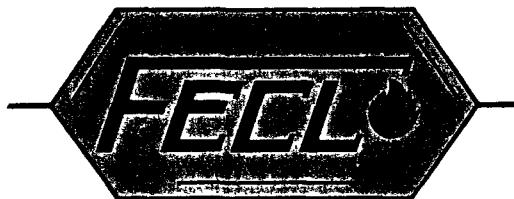
Organic

PCB <0.0001 mg/l

A handwritten signature in black ink, appearing to read "V.F. Murshak".

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

August 27, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4943-90-E1

Samples collected by:

Joyce Raines

Samples analyzed by: P. Goergen
Analyses requested by: Nasim Ansari
PO#: Verbal

Date/time samples submitted:
08-07-90 3:34 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4943-90-E1

Tag: Tertiary Effluent TE21990

Container: Glass Jars

Sample Type: Liquid

Preservation: None

Sampling date/time: 08-07-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 4943-90-E1
August 27, 1990
Page Two

FECL #: 4943-90-E1
Tag: Tertiary Effluent TE21990

Organic

PCB <0.0001 mg/l

V. F. Murshak *vfd*
Violetta F. Murshak
Laboratory Manager

VFM/mbb

CHAIN OF CUSTODY RECORD

Nº 001854

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)						PURPOSE OF ANALYSIS:	
<i>Joyce P. Barnes</i>						PCB	
LE VEL ER	NUMBER & SIZE OF CONTAINER	D A T E	T I M E	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS	
190	2 - 1 Liter	8/7/90	8:00 AM		<input checked="" type="checkbox"/>	Tertiary Effluent Sampler	
RECEIVED BY: (Signature)		DATE/TIME	3 RELINQUISHED BY: (Signature)		DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Michael Carlson</i>		8/7/ 90 P.M.	3 RELINQUISHED BY: (Signature)				
RECEIVED BY: (Signature)		DATE/TIME	4 RELINQUISHED BY: (Signature)		DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		.	4 RELINQUISHED BY: (Signature)				

CHAIN OF CUSTODY RECORD

Nº 003148

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

Kenny Mandelblit

FcB



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

February 15, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3738-90-E1

Samples collected by:

Penny Manderfuel

Date/time samples submitted:

02-08-90 12:30 p.m.

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3738-90-E1

Tag: Tertiary Outfall

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 02-08-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3738-90-E1
February 15, 1990
Page Two

FECL #: 3738-90-E1
Tag: Teritiary Outfall

PCB <0.0001 mg/l

V. F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/ab



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

January 9, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3549-90-E1

Samples collected by:

Penny Manderfuel

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:

01-05-90 11:30 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3549-90-E1

Tag: Tertiary Eff TE16689

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 01-04-90

FECL

Analytical Laboratory Report
City of Kalamazoo
FECL #: 3549-90-E1
January 9, 1990
Page Two

FECL #: _____
Tag:

3549-90-E1
Teritiary Eff TE 18689

<0.0001 mg/l

PCB

V. F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/ab



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

May 23, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4320-90-E1

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Samples collected by:

Perry Mandefield

Date/time samples submitted:
05-18-90 12:50 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4320-90-E1
Tag: Tertiary Eff. TE13590
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 05-15-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 4320-90-E1
May 23, 1990
Page Two

FECL #: 4320-90-E1
Tag: Tertiary Eff. TE13590

Organic

PCB <0.0001 mg/l

A handwritten signature in black ink that reads "V.F. Murshak, P.E." The signature is fluid and cursive, with "V.F." at the top, "Murshak" in the middle, and "P.E." at the end, enclosed in parentheses.

Violetta F. Murshak
Laboratory Manager

VFM/bph

CHAIN OF CUSTODY RECORD

Nº 001709

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

June 28, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4417-90-E1

Samples collected by:

Unknown

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
06-01-90 2:47 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4417-90-E1

Tag: Teritary Eff. TE0615290

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 06-01-90

FECL

Analytical Laboratory Report
City of Kalamazoo
FECL #: 4417-90-E1
June 28, 1990
Page Two

FECL #: 4417-90-E1
Tag: Teritary Eff.
TE0615290

Organic <0.0001 mg/l
PCB

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/bph

CHAIN OF CUSTODY RECORD

Nº 001839

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

June 28, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4454-90-E1

Samples collected by:
Unknown

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
06-06-90 11:45 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4454-90-E1

Tag: Teritary Eff. TEO15690

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 06-05-90

Analytical Laboratory Report
City of Kalamazoo
FECL #: 4454-90-E1
June 28, 1990
Page Two

FECL #: **4454-90-E1**
Tag: Teritary Eff.
TEO15690

Organic

PCB <0.0001 mg/l

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/bph

CHAIN OF CUSTODY RECORD

Nº 001843

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

March 21, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3872-90-E1

Samples collected by:

Penny Manderfuel

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:

03-09-90 10:00 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3872-90-E1

Tag: Tertiary Outfall TE06590

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 03-06-90

Analytical Laboratory Report
City of Kalamazoo
FECL #: 3872-90-E1
March 21, 1990
Page Two

FECL #: 3872-90-E1
Tag: Teritiary Outfall
TE06590

PCB <0.0001 mg/l

V. F. Murshak

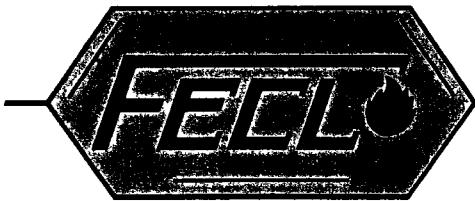
Violetta F. Murshak
Laboratory Manager

VFM/ab

CHAIN OF CUSTODY RECORD

Nº 001833

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

May 23, 1989

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4256-90-E1

Samples collected by:

Unknown

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:

05-10-90 5:14 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4256-90-E1

Tag: Teritary Eff. TE0512790

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 05-07-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 4256-90-E1
May 23, 1990
Page Two

FECL #: 4256-90-E1
Tag: Teritary Eff.
TEO512790

Organic

PCB <0.0001 mg/l

A handwritten signature in black ink, appearing to read "V.F. Murshak/RA".

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

March 8, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3823-90-E1

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Samples collected by:

Penny Manderfuel

Date/time samples submitted:
03-02-90 8:55 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3823-90-E1

Tag: Tertiary Outfall TE05990

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 03-01-90 6:50 a.m.



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3823-90-E1
March 8, 1990
Page Two

FECL #: 3823-90-E1
Tag: Teritiary Outfall
TE05990

PCB <0.0001 mg/l

A handwritten signature in black ink, appearing to read "V. F. Murshak".

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 001807

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS:

Perry Mandefield

PcB



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

April 23, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4102-90-E1

Samples collected by:
Penny Manderfield

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
04-18-90 11:40 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 4102-90-E1
Tag: Tertiary Eff.
Container: Glass Jars
Sample Type: Liquid
Preservation: None
Sampling date/time: 04-16-90 7:00 a.m.



Analytical Laboratory Report
City of Kalamazoo
FECL #: 4102-90-E1
April 23, 1990
Page Two

FECL #:
Tag:

4102-90-E1
Tertiary Eff.

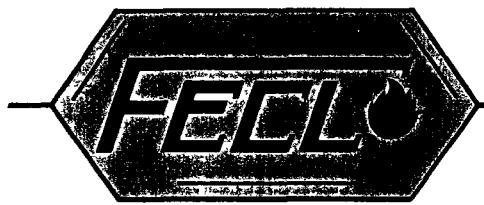
PCB

<0.0001 mg/l

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

April 9, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3991-90-E1

Samples collected by:

Penny Mandefeld

Date/time samples submitted:

04-02-90 6:30 p.m.

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3991-90-E1

Tag: Tertiary Outfall TE00289

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 04-02-90 10:20 a.m.



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3991-90-E1
April 9, 1990
Page Two

FECL #:
Tag:

3991-90-E1
Teritiary Outfall
TE00289

PCB

<0.0001 mg/l

A handwritten signature in black ink, appearing to read "V. F. Murshak".

Violetta F. Murshak
Laboratory Manager

VFM/ra

CHAIN OF CUSTODY RECORD

Nº 001826

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

July 23, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4673-90-E1

Samples collected by:
Unknown

Samples analyzed by: M. Hauer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
07-06-90 12:37 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4673-90-E1
Tag: Teritary Eff. TE18690
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 07-05-90

FECL

Analytical Laboratory Report
City of Kalamazoo
FECL #: 4673-90-E1
July 23, 1990
Page Two

FECL #: 4673-90-E1
Tag: Teritary Eff.
TE18690

Organic

PCB <0.0001 mg/l

V. F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913

August 3, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 4772-90-E1

Samples collected by:
Joyce Gaines

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#:

Date/time samples submitted:
07-17-90 2:30 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: Unknown

Samples collected:

FECL #: 4772-90-E1
Tag: Tertiary Eff. TE19190
Container: Glass Jars
Sample Type: Liquid
Preservation: None
Sampling date/time: 07-10-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 4772-90-E1
August 3, 1990
Page Two

FECL #: 4772-90-E1
Tag: Teritary Eff.
TE19190

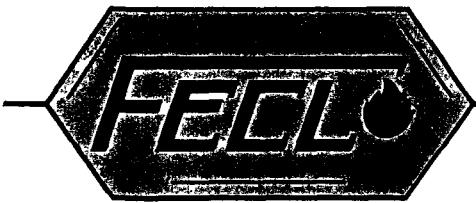
Organic

PCB <0.0001 mg/l

V.F. Murshak, LEP

Violetta F. Murshak
Laboratory Manager

VFM/bph



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

February 19, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3769-90-E1

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Samples collected by:
Penny Manderfuel

Date/time samples submitted:
02-15-90 10:43 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3769-90-E1
Tag: Tertiary EFF TE04490
Container: Glass Jars
Sample Type: Liquid
Preservation: None
Sampling date/time: 02-13-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3769-90-E1
February 19, 1990
Page Two

FECL #: 3769-90-E1
Tag: Tertiary EFF TE04490

PCB <0.0001 mg/l

A handwritten signature in black ink that reads "V. F. Murshak". The signature is fluid and cursive, with "V. F." on top and "Murshak" below it.

Violetta F. Murshak
Laboratory Manager

VFM/ab



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

January 9, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Dr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3549-90-E1

Samples collected by:

Penny Manderfuel

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
01-05-90 11:30 p.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Analysis

Samples collected:

FECL #: 3549-90-E1

Tag: Tertiary Eff TE16689

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 01-04-90

Analytical Laboratory Report
City of Kalamazoo
FECL #: 3549-90-E1
January 9, 1990
Page Two

FECL #: 3549-90-E1
Tag: Teritiary Eff TE 16689

PCB <0.0001 mg/l

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

CITY OF KALAMAZOO
CAL REPORT# 10753

SAMPLES RECEIVED 12/05/90

PAGE 1

LAB# 9240255 IND. INF. II 33990
LAB# 9240256 PRI. INF. PI 33990

LAB#	9240255	9240256
Mercury, Total , mg/l	< 0.0005	< 0.0005
PCB'S BY AROCHLOR	--- ug/l ---	--- ug/l ---
PCB-1016	< 0.2	< 0.2
PCB-1221	< 0.2	< 0.2
PCB-1232	< 0.2	< 0.2
PCB-1242	< 0.2	< 0.2
PCB-1248	< 0.2	< 0.2
PCB-1254	< 0.2	< 0.2
PCB-1260	< 0.2	< 0.2
PCB-1262	< 0.2	< 0.2
PCB, Total	< 0.2	< 0.2

CITY OF KALAMAZOO
CAL REPORT# 10753

SAMPLES RECEIVED 12/05/90

PAGE 2

LAB# 9240257 DSE CAKE DSEC 33990
LAB# 9240258 BELT PRESS CAKE BPC 33990
LAB# 9240259 INC. ASH IA 33990

LAB# UNITS	9240257 mg/kg	9240258 mg/kg	9240259 mg/kg
Mercury, Total	0.21	0.19	< 0.01
PCB'S BY AROCHLOR			
PCB-1016	< 0.1	< 1.0	< 0.1
PCB-1221	< 0.1	< 1.0	< 0.1
PCB-1232	< 0.1	< 1.0	< 0.1
PCB-1242	< 0.1	< 1.0	< 0.1
PCB-1248	< 0.1	< 1.0	< 0.1
PCB-1254	< 0.1	< 1.0	< 0.1
PCB-1260	< 0.1	< 1.0	< 0.1
PCB-1262	< 0.1	< 1.0	< 0.1
PCB, Total	< 0.1	< 1.0*	< 0.1

*Higher level of detection due to matrix interference.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

January 18, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3592-90-E1

Samples collected by:
P. Manderfield

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Date/time samples submitted:
01-15-90 11:09 a.m.

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Screening

Samples collected:

FECL #: 3592-90-E1
Tag: Tertiary Effluent - TE16689
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 01-12-90

WU
ewy

**ANALYTICAL
LABORATORY**

Analytical Laboratory Report
City of Kalamazoo
FECL #: 3592-90-E1
January 18, 1990
Page Two

FECL #: **3592-90-E1**
Tag: **Teritary Effluent - TE16689**

PCB **<0.0001 mg/l**

V. F. Murshak

Violetta F. Murshak
Laboratory Manager

VFM/ab

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

Proj. No.: 900685
Client No.: 1129
Date Activated: 3/07/90
Date Promised: 3/28/90
Date Validated: 3/28/90
Date Reported: 3/28/90
PO#: 45285

Project Desc.: Analysis of two leachate samples.

Dear Client:

Attached you will find test results for Project No. 900685. Please refer to this Project No. if you have any questions regarding this work.

Respectfully submitted,
KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

WHB/mcr

cc: Ken Leanin

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 900685
Report Date: 3/28/90

Project Desc.: Analysis of two leachate samples.

Sample No.: 900685-01 Rec'd on: 3/07/90
ID: **Filter Press Cake Leachate, FPC 032 90-L, 1/30/90***Dioxin (2,3,7,8-TCDD)* <0.01 ug/L
PCB, total <0.1 ug/LSample No.: 900685-02 Rec'd on: 3/07/90
ID: **Incinerator Ash Leachate, INA 030 90-L, 2/1/90***Dioxin (2,3,7,8-TCDD)* <0.01 ug/L
PCB, total <0.1 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.

- KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

Proj. No.: 900685
Client No.: 1129
Date Activated: 3/07/90
Date Promised: 3/28/90
Date Validated: 3/28/90
Date Reported: 3/28/90
PO#: 45285

Project Desc.: Analysis of two leachate samples.

Dear Client:

Attached you will find test results for Project No. 900685. Please refer to this Project No. if you have any questions regarding this work.

Respectfully submitted,
KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

WHB/mcr

cc: Ken Leanin

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 900685
Report Date: 3/28/90

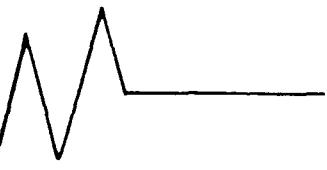
Project Desc.: Analysis of two leachate samples.

Sample No.: 900685-01 Rec'd on: 3/07/90
ID: Filter Press Cake Leachate, FPC 032 90-L, 1/30/90Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/LSample No.: 900685-02 Rec'd on: 3/07/90
ID: Incinerator Ash Leachate, INA 030 90-L, 2/1/90Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

Proj. No.: 900202
Client No.: 1129
Date Activated: 1/22/90
Date Promised: 2/12/90
Date Validated: 2/12/90
Date Reported: 2/12/90
PO#: 45285

Project Desc.: Analysis of two aqueous samples.

Dear Client:

Attached you will find test results for Project No. 900202. Please refer to this Project No. if you have any questions regarding this work.

Respectfully submitted,
KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

WHB/mcr

cc: Ken Leanin

ANALYTICAL RESULTS

Project No: 900202
Report Date: 2/12/90

Sample No.: 900202-01 Rec'd on: 1/22/90
ID: FPC23989-L, filter press cake-leachate 12/5/89

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Sample No.: 900202-02 Rec'd on: 1/22/90
ID: INA23989-L, incinerator ash-leachate 12/5/89

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

Proj. No.: 900202
Client No.: 1129
Date Activated: 1/22/90
Date Promised: 2/12/90
Date Validated: 2/12/90
Date Reported: 2/12/90
PO#: 45285

Project Desc.: Analysis of two aqueous samples.

Dear Client:

Attached you will find test results for Project No. 900202. Please refer to this Project No. if you have any questions regarding this work.

Respectfully submitted,
KAR Laboratories, Inc.

William H. Bouma
William H. Bouma, Ph.D.
Director

WHB/mcr

cc: Ken Leanin

ANALYTICAL RESULTS

Project No: 900202
Report Date: 2/12/90

Sample No.: 900202-01 Rec'd on: 1/22/90
ID: FPC23989-L, filter press cake-leachate 12/5/89

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Sample No.: 900202-02 Rec'd on: 1/22/90
ID: INA23989-L, incinerator ash-leachate 12/5/89

Dioxin (2,3,7,8-TCDD) <0.01 ug/L
PCB, total <0.1 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167

January 18, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3592-90-E1

Samples collected by:

P. Manderfield

Date/time samples submitted:

01-15-90 11:09 a.m.

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Screening

Samples collected:

FECL #: 3592-90-E1

Tag: Tertiary Effluent - TE16689

Container: Glass Jar

Sample Type: Liquid

Preservation: None

Sampling date/time: 01-12-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3592-90-E1
January 18, 1990
Page Two

FECL #: 3592-90-E1
Tag: Teritary Effluent - TE16689

PCB <0.0001 mg/l

A handwritten signature in black ink that reads "V. F. Murshak". The "V." is capitalized and followed by a period, then "F." and a space, then "Murshak".

Violetta F. Murshak
Laboratory Manager

VFM/ab



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167

January 18, 1990

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attn Mr. Nasim Ansari

ANALYTICAL LABORATORY REPORT

FECL #: 3592-90-E1

Samples collected by:

P. Manderfield

Date/time samples submitted:

01-15-90 11:09 a.m.

Samples analyzed by: J. Phifer
Analyses requested by: Nasim Ansari
PO#: 46446

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project description: PCB Screening

Samples collected:

FECL #: 3592-90-E1
Tag: Tertiary Effluent - TE16689
Container: Glass Jar
Sample Type: Liquid
Preservation: None
Sampling date/time: 01-12-90



Analytical Laboratory Report
City of Kalamazoo
FECL #: 3592-90-E1
January 18, 1990
Page Two

FECL #: 3592-90-E1
Tag: Teritary Effluent - TE16689

PCB <0.0001 mg/l

A handwritten signature in black ink, appearing to read "V. F. Murshak".

Violetta F. Murshak
Laboratory Manager

VFM/ab

CHAIN OF CUSTODY RECORD

Nº 003155

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

CAL

Canton Analytical Laboratory, Inc.

ENVIRONMENTAL ANALYSIS

March 20, 1990

CITY OF KALAMAZOO
Department of Public Utilities
1415 N. Harrison
Kalamazoo, MI 49007

ATTENTION: Nasim Ansari

RE: CAL Report #6047
26 samples received 2-20-90

REVISED REPORT

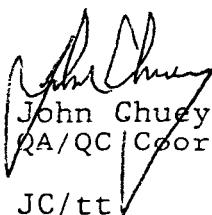
Dear Mr. Ansari:

The sample(s) we received from you has/have been analyzed as requested. The results are compiled in the enclosed report.

It is a pleasure to be of assistance to you. Please contact us if you have questions concerning any aspect of this work.

Very truly yours,

CANTON ANALYTICAL LABORATORY, INC.


John Chuey
QA/QC Coordinator
JC/tt

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 1

LAB# 9140955 MUN SCREEN 2-9
 LAB# 9140956 MUN SCREEN 2-12
 LAB# 9140957 MUN SCREEN 2-13
 LAB# 9140958 MUN SCREEN 2-15
 LAB# 9140959 IND SCREEN 2-9
 LAB# 9140960 IND SCREEN 2-11

LAB# UNITS	9140955 mg/kg dry wt.	9140956 mg/kg dry wt.	9140957 mg/kg dry wt.	9140958 mg/kg dry wt.	9140959 mg/kg dry wt.	9140960 mg/kg dry wt.
Cyanide, Total	0.83	0.43	0.21	0.88	< 0.25	< 0.25
Total Solids, %	24	23	29	17	21	21
PCB'S BY AROCHLOR						
PCB-1016	< 4.0	< 4.0	< 15*	< 6.0	< 5.0	< 5.0
PCB-1221	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1232	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1242	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1248	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1254	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1260	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1262	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB, Total	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0

*This elevated detection limit
is due to matrix interferences.

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 2

LAB# 9140961 IND SCREEN 2-13
 LAB# 9140962 IND SCREEN 1-15
 LAB# 9140963 GRIT 2-9
 LAB# 9140964 GRIT 2-11
 LAB# 9140965 GRIT 2-13
 LAB# 9140966 GRIT 2-15

LAB# UNITS	9140961 mg/kg dry wt.	9140962 mg/kg dry wt.	9140963 mg/kg dry wt.	9140964 mg/kg dry wt.	9140965 mg/kg dry wt.	9140966 mg/kg dry wt.
Cyanide, Total	< 0.25	< 0.1	< 0.30	< 0.07	< 0.05	< 0.06
Total Solids, %	21	51	17	76	91	80
PCB'S BY AROCHLOR						
PCB-1016	< 5.0	< 2.0	< 3.0*	< 7.0*	< 5.5*	< 6.0*
PCB-1221	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1232	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1242	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1248	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1254	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1260	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1262	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB, Total	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 3

LAB# 9140967 SCUM 2-12
LAB# 9140968 SCUM 2-15

LAB# UNITS	9140967 mg/kg dry wt.	9140968 mg/kg dry wt.
Cyanide, Total	< 0.1	< 0.08
Total Solids, %	35	63
PCB'S BY AROCHLOR		
PCB-1016	< 14*	< 8.0*
PCB-1221	< 14	< 8.0
PCB-1232	< 14	< 8.0
PCB-1242	< 14	< 8.0
PCB-1248	< 14	< 8.0
PCB-1254	< 14	< 8.0
PCB-1260	< 14	< 8.0
PCB-1262	< 14	< 8.0
PCB, Total	< 14	< 8.0

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 4

LAB# 9140969 VAC FILTER 2-9
 LAB# 9140970 VAC FILTER 2-11
 LAB# 9140971 VAC FILTER 2-13
 LAB# 9140972 VAC FILTER 2-15
 LAB# 9140973 DSE CAKE 2-9
 LAB# 9140974 DSE CAKE 2-11

LAB#	9140969	9140970	9140971	9140972	9140973	9140974
UNITS	mg/kg dry wt.					
Arsenic, Total	8.5	4.0	2.8	7.3	53	84
Cadmium, Total	10	7.4	11	13	22	21
Chromium, Total	100	130	140	150	240	230
Copper, Total	410	395	360	450	310	300
Lead, Total	85	84	85	100	160	150
Mercury, Total	1.0	0.44	0.80	0.50	0.31	0.32
Nickel, Total	64	65	82	85	170	160
Silver, Total	25	33	15	43	29	32
Zinc, Total	740	770	616	750	1500	1600
Cyanide, Total	0.50	0.35	0.38	0.88	2.6	2.8
Total Solids, %	39	43	39	40	58	57
PCB'S BY AROCHLOR						
PCB-1016	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# UNITS	9140969 mg/kg dry wt.	9140970 mg/kg dry wt.	9140971 mg/kg dry wt.	9140972 mg/kg dry wt.	9140973 mg/kg dry wt.	9140974 mg/kg dry wt.
PCB-1221	< 2.5	< 2.0	< 2.5	< 2.5	2.0	< 2.0
PCB-1232	< 2.5	2.0	< 2.5	2.5	2.0	< 2.0
PCB-1242	< 2.5	2.0	2.5	< 2.5	2.0	< 2.0
PCB-1248	< 2.5	2.0	2.5	< 2.5	< 2.0	< 2.0
PCB-1254	< 2.5	< 2.0	2.5	2.5	< 2.0	2.0
PCB-1260	< 2.5	< 2.0	2.5	< 2.5	2.0	2.0
PCB-1262	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB, Total	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
Beryllium, Total	< 1.3	< 1.2	< 1.3	< 1.3	1.3	1.5

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 6

LAB# 9140975 DSE CAKE 2-13
 LAB# 9140976 DSE CAKE 2-15
 LAB# 9140977 INC ASH 2-9
 LAB# 9140978 INC ASH 2-11
 LAB# 9140979 INC ASH 2-13
 LAB# 9140980 INC ASH 2-15

LAB#	9140975	9140976	9140977	9140978	9140979	9140980
UNITS	mg/kg dry wt.					
Arsenic, Total	66	82	47	24	42	30
Cadmium, Total	21	160	6.4	6.9	5.5	2.8
Chromium, Total	240	210	160	270	180	210
Copper, Total	290	1600	660	620	550	580
Lead, Total	150	130	150	140	130	100
Mercury, Total	0.29	0.34	< 0.01	< 0.01	< 0.01	0.03
Nickel, Total	150	130	140	130	140	110
Silver, Total	18	154	8.1	3.9	4.4	< 1.5
Zinc, Total	1500	1400	1400	1400	1300	1100
Cyanide, Total	1.9	0.71	0.20	0.3	0.40	0.45
Total Solids, %	62	56	99.8	99.8	99.6	99.6
PCB'S BY AROCHLOR						
PCB-1016	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# UNITS	9140975 mg/kg dry wt.	9140976 mg/kg dry wt.	9140977 mg/kg dry wt.	9140978 mg/kg dry wt.	9140979 mg/kg dry wt.	9140980 mg/kg dry wt.
PCB-1221	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1232	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1242	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1248	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1254	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1260	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1262	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB, Total	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
Beryllium, Total	1.3	1.3	0.83	1.2	0.75	0.55

CAL

Canton Laboratories Inc.
153 E. 5th Street
NY 10016
(212) 483-9713

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FAX NO. 2) 385-8182

PROM: John Chuey

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8

ADDITIONAL INFORMATION:

Here is your revised report, with results on a dry weight basis. A general revision will follow by mail.

John Chuey

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(313) 483-7430.

CAL FAX NUMBER: (313) 545-1541

• 1/4

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 1

LAB# 9140955	MUN SCREEN 2-9
LAB# 9140956	MUN SCREEN 2-12
LAB# 9140957	MUN SCREEN 2-13
LAB# 9140958	MUN SCREEN 2-15
LAB# 9140959	IND SCREEN 2-9
LAB# 9140960	IND SCREEN 2-11

LAB# UNITS	9140955 mg/kg dry wt.	9140956 mg/kg dry wt.	9140957 mg/kg dry wt.	9140958 mg/kg dry wt.	9140959 mg/kg dry wt.	9140960 mg/kg dry wt.
Cyanide, Total	0.83	0.43	0.21	0.88	< 0.25	< 0.25
Total Solids, %	24	23	29	17	21	21
PCB'S BY AROCHLOR						
PCB-1016	< 4.0	< 4.0	< 15*	< 6.0	< 5.0	< 5.0
PCB-1121	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1232	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1242	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1248	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1254	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1260	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB-1262	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0
PCB, Total	< 4.0	< 4.0	< 15	< 6.0	< 5.0	< 5.0

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CITY OF KALAMAZOO
CAL REPORT# 6047

PAGE 2

LAB# 9140961 IND SCREEN 2-13
LAB# 9140962 IND SCREEN 1-15
LAB# 9140963 GRIT 2-9
LAB# 9140964 GRIT 2-11
LAB# 9140965 GRIT 2-13
LAB# 9140966 GRIT 2-15

LAB# UNITS	9140961 mg/kg dry wt.	9140962 mg/kg dry wt.	9140963 mg/kg dry wt.	9140964 mg/kg dry wt.	9140965 mg/kg dry wt.	9140966 mg/kg dry wt.
Cyanide, Total	< 0.25	< 0.1	< 0.30	< 0.07	< 0.05	< 0.06
Total Solids, %	21	51	17	76	91	80
PCB'S BY AROCHLOR						
PCB-1016	< 5.0	< 2.0	< 3.0*	< 7.0*	< 5.5*	< 6.0*
PCB-1221	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1232	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1242	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1248	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1254	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1260	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB-1262	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0
PCB, Total	< 5.0	< 2.0	< 30	< 7.0	< 5.5	< 6.0

CITY OF KALAMAZOO
CAL REPORT# 6047

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PAGE 3

LAB# 9140967 SCUM 2-12
LAB# 9140968 SCUM 2-15

LAB# UNITS	9140967 mg/kg dry_wt.	9140968 mg/kg dry_wt.
Cyanide, Total	< 0.1	< 0.08
Total Solids, %	35	63
PCB'S BY AROCHLOR		
PCB-1016	< 14*	< 8.0*
PCB-1221	< 14	< 8.0
PCB-1232	< 14	< 8.0
PCB-1242	< 14	< 8.0
PCB-1248	< 14	< 8.0
PCB-1254	< 14	< 8.0
PCB-1260	< 14	< 8.0
PCB-1262	< 14	< 8.0
PCB, Total	< 14	< 8.0

CITY OF KALAMAZOO
CAL REPRT# 6047

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PAGE 4

LAB# 9140969 VAC FILTER 2-9
LAB# 9140970 VAC FILTER 2-11
LAB# 9140971 VAC FILTER 2-13
LAB# 9140972 VAC FILTER 2-15
LAB# 9140973 DSE CAKE 2-9
LAB# 9140974 DSE CAKE 2-11

LAB# UNITS	9140969 mg/kg dry wt.	9140970 mg/kg dry wt.	9140971 mg/kg dry wt.	9140972 mg/kg dry wt.	9140973 mg/kg dry wt.	9140974 mg/kg dry wt.
Arsenic, Total	8.5	4.0	2.8	7.3	53	84
Cadmium, Total	10	7.4	11	13	22	21
Chromium, Total	100	130	140	150	240	230
Copper, Total	410	395	360	450	310	300
Lead, Total	85	84	85	100	160	150
Mercury, Total	1.0	0.44	0.80	0.50	0.31	0.32
Nickel, Total	64	65	82	85	170	160
Silver, Total	25	33	15	43	29	32
Zinc, Total	740	770	616	750	1500	1600
Cyanide, Total	0.50	0.35	0.38	0.88	2.6	2.8
Total Solids, %	39	43	39	40	58	57
PCB'S BY AROCHLOR						
PCB-1016	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0

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CITY OF KALAMAZOO
CAL REPRT# 6047

PAGE 5

LAB# UNITS	9140969 mg/kg dry wt.	9140970 mg/kg dry wt.	9140971 mg/kg dry wt.	9140972 mg/kg dry wt.	9140973 mg/kg dry wt.	9140974 mg/kg dry wt.
PCB-1221	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB-1232	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB-1242	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB-1248	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB-1254	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB-1260	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB-1262	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
PCB, Total	< 2.5	< 2.0	< 2.5	< 2.5	< 2.0	< 2.0
Beryllium, Total	< 1.3	< 1.2	< 1.3	< 1.3	1.3	1.5

CITY OF KALAMAZOO
CAL REPORT# 6047

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PAGE 6

LAB# 9140975 DSE CAKE 2-13
LAB# 9140976 DSE CAKE 2-15
LAB# 9140977 INC ASH 2-9
LAB# 9140978 INC ASH 2-11
LAB# 9140979 INC ASH 2-13
LAB# 9140980 INC ASH 2-15

LAB# UNITS	9140975 mg/kg dry wt.	9140976 mg/kg dry wt.	9140977 mg/kg dry wt.	9140978 mg/kg dry wt.	9140979 mg/kg dry wt.	9140980 mg/kg dry wt.
Arsenic, Total	66	82	47	24	42	30
Cadmium, Total	21	160	6.4	6.9	5.5	2.8
Chromium, Total	240	210	160	270	180	210
Copper, Total	290	1600	660	620	550	580
Lead, Total	150	130	150	140	130	100
Mercury, Total	0.29	0.34	< 0.01	< 0.01	< 0.01	0.03
Nickel, Total	150	130	140	130	140	110
Silver, Total	18	154	8.1	3.9	4.4	< 1.5
Zinc, Total	1500	1400	1400	1400	1300	1100
Cyanide, Total	1.9	0.71	0.20	0.3	0.40	0.45
Total Solids, %	62	56	99.8	99.8	99.6	99.6
PCB'S BY AROCHLOR						
PCB-1016	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1

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CITY OF KALAMAZOO
CAL REPORT# 6047

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LAB# UNITS	9140975 mg/kg dry wt.	9140976 mg/kg dry wt.	9140977 mg/kg dry wt.	9140978 mg/kg dry wt.	9140979 mg/kg dry wt.	9140980 mg/kg dry wt.
PCB-1221	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1232	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1242	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1248	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1254	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1260	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1262	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB, Total	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
Beryllium, Total	1.3	1.3	0.83	1.2	0.75	0.55

CHAIN OF CUSTODY RECORD

Nº 001802

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

Manderfield

PURPOSE OF ANALYSIS:

Metals. As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Ag
^{2N}
PCB, total Cmines, % Solids,

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Mun Screen		1-1L	2-9 ^E 2-10 ^E		✓	✓	No Metals
2	MUN Screen		1-1L	2-11 ^E 2-12		✓	✓	No Metals
3	Mun Screen		1-1L	2-13 ^E 2-14		✓	✓	No Metals
4	MunScreen		1- 1L	2-15 ^E 2-16		✓	✓	No Metals
5	Ind Screen		1- 1L	2-9 ^E 2-10		✓		No Metals
6	Ind SCREEN		1- 1L	2-11 ^E 2-12		✓		No Metals
7	Ind screen		1- 1L	2-13 ^E 2-14		✓		No Metals
8	IndScreen		1- 1L	2-15 ^E 2-16		✓		No Metals
9	Grit		1- 1L	2-9 ^E 2-10		✓		No Metals
10	Grit		1- 1L	2-11 ^E 2-12		✓		No Metals
11	Grit		1- 1L	2-13 ^E 2-14		✓		No Metals

¹ RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	³ RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Manderfield	2/20/90 9:40 AM	J. Babcock	2/20/90 10:00				

² RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	⁴ RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

CHAIN OF CUSTODY RECORD

Nº 001804

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYS

PURPOSE OF ANALYSIS:-
Metals AS, BE, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn

PcP, total Cyanides, 90 Solids

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
P. Mandelbeck	2/20/90 9:40	Angie Babcock	2/20/90 16:15				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

CHAIN OF CUSTODY RECORD

Nº 001803

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

Manderfield

PURPOSE OF ANALYSIS:

Metals AS, BE, Cd, Cl, Cu, Pb, Hg, Ni, Ag, Zn

PCR, total cyanides, % solids

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
12	Gnt		1- 1L	2-15-89		✓		No Metals
13	Serum		1- 1L	2-16-89		✓		No Metals or Cyanides
14	Serum		1- 1L	2-15-89		✓		No Metals or Cyanides
15	Vac filter CAKE		1- 1L	2-9-89		✓		
16	Vac filter CAKE		1- 1L	2-10-89		✓		
17	Vac filter CAKE		1- 1L	2-11-89		✓		
18	Vac filter CAKE		1- 1L	2-12-89		✓		
19	DSE CAKE		1- 1L	2-13-89		✓		
20	DSE CAKE		1- 1L	2-14-89		✓		
21	DSE CAKE		1- 1L	2-15-89		✓		
22	DSE CAKE		1- 1L	2-16-89		✓		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Manderfield	2/20/90 9:40 AM	J. Babcock	2/20/90 16:15				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

CAL

Canton Analytical Laboratory, Inc.
153 Elder Street
Ypsilanti, Michigan 48197
(313) 483-7430

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DATE: 3/16/90

TO: Abbas Ansari

FAX NO. (512) 385-8182

FROM: John Chay

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Report was mailed 3/15/90

John Chay

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May 1st 1990
John Chay
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(313) 483-7430.

CAL FAX NUMBER: (313) 545-1541

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 1

LAB# 9140955 MUN SCREEN 2-9
 LAB# 9140956 MUN SCREEN 2-12
 LAB# 9140957 MUN SCREEN 2-13
 LAB# 9140958 MUN SCREEN 2-15
 LAB# 9140959 IND SCREEN 2-9
 LAB# 9140960 IND SCREEN 2-11

LAB# UNITS	9140955 mg/kg	9140956 mg/kg	9140957 mg/kg	9140958 mg/kg	9140959 mg/kg	9140960 mg/kg
Cyanide, Total	0.20	0.10	0.06	0.15	< 0.05	< 0.05
Total Solids, %	24	23	29	17	21	21
PCB'S BY AROCHLOR						
PCB-1016	< 1.0	< 1.0	< 5.0*	< 1.0	< 1.0	< 1.0
PCB-1221	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB-1232	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB-1242	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB-1248	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB-1254	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB-1260	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB-1262	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
PCB, Total	0.5 mg/l ^{1/2}	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0

* This elevated detection limit is due to matrix interferences

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

PAGE 2

LAB# 9140961 IND SCREEN 2-13
LAB# 9140962 IND SCREEN 1-15
LAB# 9140963 GRIT 2-9
LAB# 9140964 GRIT 2-11
LAB# 9140965 GRIT 2-13
LAB# 9140966 GRIT 2-15

LAB# UNITS	9140961 mg/kg	9140962 mg/kg	9140963 mg/kg	9140964 mg/kg	9140965 mg/kg	9140966 mg/kg
Cyanide, Total	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Solids, %	21	51	17	76	91	80
PCB'S BY AROCHLOR						
PCB-1016	< 1.0	< 1.0	< 5.0*	< 5.0*	< 5.0*	< 5.0*
PCB-1221	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB-1232	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB-1242	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB-1248	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB-1254	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB-1260	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB-1262	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0
PCB, Total	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# 9140967 SCUM 2-12
LAB# 9140968 SCUM 2-15

LAB# UNITS	9140967 mg/kg	9140968 mg/kg
Cyanide, Total	< 0.05	< 0.05
Total Solids, %	35	63
PCB'S BY AROCHLOR		
PCB-1016	< 5.0*	< 5.0*
PCB-1221	< 5.0	< 5.0
PCB-1232	< 5.0	< 5.0
PCB-1242	< 5.0	< 5.0
PCB-1248	< 5.0	< 5.0
PCB-1254	< 5.0	< 5.0
PCB-1260	< 5.0	< 5.0
PCB-1262	< 5.0	< 5.0
PCB, Total	< 5.0	< 5.0

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# 9140969	VAC FILTER 2-9
LAB# 9140970	VAC FILTER 2-11
LAB# 9140971	VAC FILTER 2-13
LAB# 9140972	VAC FILTER 2-15
LAB# 9140973	DSE CAKE 2-9
LAB# 9140974	DSE CAKE 2-11

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# UNITS	9140969 mg/kg	9140970 mg/kg	9140971 mg/kg	9140972 mg/kg	9140973 mg/kg	9140974 mg/kg
PCB-1221	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1232	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1242	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1248	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1254	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1260	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1262	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Beryllium, Total	< 0.50	< 0.50	0.50	< 0.50	0.75	0.85

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# 9140975	DSE CAKE 2-13
LAB# 9140976	DSE CAKE 2-15
LAB# 9140977	INC ASH 2-9
LAB# 9140978	INC ASH 2-11
LAB# 9140979	INC ASH 2-13
LAB# 9140980	INC ASH 2-15

CITY OF KALAMAZOO
CAL REPORT# 6047

SAMPLES RECEIVED 02/20/90

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LAB# UNITS	9140975 mg/kg	9140976 mg/kg	9140977 mg/kg	9140978 mg/kg	9140979 mg/kg	9140980 mg/kg
PCB-1221	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1232	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1242	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1248	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1254	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1260	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB-1262	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PCB, Total	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Beryllium, Total	0.80	0.70	0.83	1.2	0.75	0.55

CHAIN OF CUSTODY RECORD

No 001803

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

M Mandelkoff

PURPOSE OF ANALYSIS:

Metals As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn

DGP total cyanides, % Solids

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	G O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
1212	Gnt		1- 1L	2-15-87 2-16			✓	No Metals
1213	Swm		1- 1L	2-12 2-13-87			✓	No Metals or Cyanides
1214	Swm		1- 1L	2-15-87 2-16			✓	No Metals or Cyanides
1215	Vac filter cake		1- 1L	2-9-87 2-10-87			✓	
1216	Vac filter cake		1- 1L	2-11-87 2-12			✓	
1217	Vac filter cake		1- 1L	2-13-87 2-14			✓	
1218	Vac filter cake		1- 1L	2-15-87 2-16			✓	
1219	DSE cake		1- 1L	2-9-87 2-10			✓	
1220	DSE CAKE		1- 1L	2-11-87 2-12			✓	
1221	DSE CAKE		1- 1L	2-9-87 2-14			✓	
1222	DSE CAKE		1- 1L	2-15-87 2-16			✓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
M Mandelkoff	2/20/90 9:40 AM	J Fabcock	2/20/90 16:15				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS.

John C. ...
(Signature)

Minderfeid

Metals. HS, BC, CD, Cu, Mo, Ti Al, Zn
PCB, total Cuyants, 90 Solids.

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GARB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	MUN SCREEN		1-1L	2-9 E 2-10 S		✓	✓	No Metals
2	MUN SCREEN		1-1L	2-11 E 2-12		✓	✓	No Metals
3	MUN SCREEN		1-1L	2-13 E 2-14		✓	✓	No Metals
4	MUN SCREEN		1-1L	2-15 E 2-16		✓	✓	No Metals
5	Tint Screen		1-1L	2-9 E 2-10		✓		No Metals
6	Tint Screen		1-1L	2-11 E 2-12		✓		No Metals
7	Tint Screen		1-1L	2-13 E 2-14		✓		No Metals
8	Tint Screen		1-1L	2-15 E 2-16		✓		No Metals
9	Grit		1-1L	2-9 E 2-10		✓		No Metals
10	Grit	/	1-1L	2-11 E 2-12		✓		No Metals
11	Grit		1-1L	2-13 E 2-14		✓		No Metals

1 RELINQUISHED BY: (Signature) <i>H. Mandeville</i>	DATE/TIME 2/20/90 9:40 AM	RECEIVED BY: (Signature) <i>J. Babcock</i>	DATE/TIME 2/21/90 10:00	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS

CHAIN OF CUSTODY RECORD

Nº 001804.

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

Metals As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn

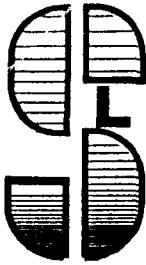
PCP total Cynicides, go Solids

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>P. Mandujal</i>	9/9/90 9:40 AM	<i>Barbara L</i>	9/9/90 16:15				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

	Soil + waste waste	Mg Shallow magma	Depth
Zn	1	10 - 750	
Ag	.1	+	
Ni	5	25	
Hg	.1	15 - 2	
Pb	1	10 - 250	
Cu	1	10 - 250	
Cr	1	5 - 50.	
Cd	.5	3 - 5	
As	1	10 - 100.	
PCBs	.5		
Ba	1		
CN	1		
		(a) Si	5-10 cm
			10-20 cm
			Mod Vol.
			Mod Vol.

Nasim



SHRADER

ANALYTICAL AND CONSULTING LABORATORIES INC.

• Mass Spectrometry • Gas Chromatography • Supporting Services

REPORT OF ANALYTICAL SERVICES

SUBMITTED TO :

CITY OF KALAMAZOO
WASTEWATER ADMINISTRATION
1415 NORTH HARRISON
KALAMAZOO, MICHIGAN 49007
ATTN: BRUCE MERCHANT

We are pleased to provide the enclosed analytical results for the following sample(s). Should you have any questions regarding the methods and/or results, please feel free to write or call.

Customer sample : FLOW BASE COMPOSITE 1 AND 2
AND VOC 1A, 1B, 2A, 2B, 3A, 3B,
4A, 4B, 5A, 5B, 6A, AND 6B,
AND 2 FIELD BLANKS

Sample description : WATER SAMPLES

SL # : 11481-11489

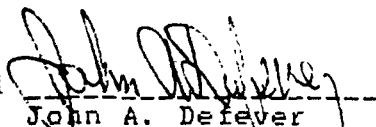
Analysis performed : GC/MS

Date received : 22-FEBRUARY-85

Date completed : 6-MARCH-85

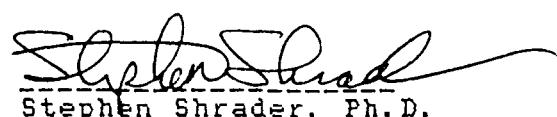
Report date : 8-MARCH-85

Approved



John A. Defever

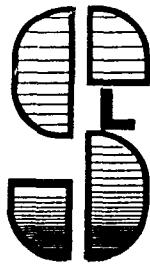
Analyst



Stephen Shrader, Ph.D.

Enclosure(s)

-Continued-



SHRADER

ANALYTICAL AND CONSULTING
LABORATORIES

Sample(s) FLOW BASE COMPOSITE 1 AND 2
CITY OF KALAMAZOO

INC.
• Mass Spectrometry • Gas Chromatography • Supporting Services

8-MARCH-85

Page 2

A N A L Y T I C A L P R O C E D U R E S :

The water samples were extracted and analyzed according to EPA Method 625 for acid/base-neutral/and pesticide-PCB priority pollutant fractions. Volatile priority pollutants were determined by EPA Method 624.

A laboratory blank and a portion of sample EC-1 spiked with nine known compounds were also analyzed as quality assurance checks.

R E S U L T S :

Complete quantitative reports for each priority pollutant fraction are enclosed. In addition, chromatograms generated during the analysis are included. It is noted that non-priority pollutant organics are present in the samples.

SS/cps

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

02-28-1985

SL#11481C 40 ml extracted of sample COMPOSITE OF VOC 1A,2A,3

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
ACROLEIN	N.D.	78.4
ACRYLONITRILE	N.D.	45.5
BENZENE	N.D.	2.4
bis(CHLOROMETHYL)ETHER	N.D.	703.1
BROMOFORM	N.D.	7.6
CARBON TETRACHLORIDE	N.D.	7.5
CHLOROBENZENE	N.D.	2.5
CHLORODIBROMOMETHANE	N.D.	6.5
CHLOROETHANE	N.D.	22.6
2-CHL'ETHYL V'L ETHER	N.D.	96.5
CHLOROFORM	17.9	3.5
DICHLOROBROMOMETHANE	N.D.	5.1
1,1-DICHLOROETHANE	N.D.	15.9
1,2-DICHLOROETHANE	616.1	5.1
1,1-DICHLOROETHYLENE	N.D.	18.8
1,2-DICHLOROPROPANE	N.D.	5.3
CIS-1,3-DICHLOROPROPENE	N.D.	6.1
TRANS-1,3-DICHL'PROPENE	N.D.	5.1
ETHYL BENZENE	Detected less than	5.4
METHYL BROMIDE	N.D.	17.5
METHYL CHLORIDE	N.D.	8.5
METHYLENE CHLORIDE	1,925.7	4.4
Sym-TETRAChl'ETHANE	N.D.	2.6
TETRAChLOROETHYLENE	15.0	6.3
TOLUENE	90.9	2.5
1,2-t-DICHL'ETHYLENE	N.D.	11.6
1,1,1-TRICHL'ETHANE	N.D.	9.4
1,1,2-TRICHL'ETHANE	N.D.	5.9
TRICHLOROETHYLENE	7.6	7.1
TRICHL'FLUOROMETHANE	N.D.	5.6
VINYL CHLORIDE	N.D.	7.3

SHRADER LABORATORIES
QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

02-27-1985

SL#11484C 40 ml extracted of sample COMPOSITE OF VOC 4A,5A,6

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
ACROLEIN	N.D.	42.2
ACRYLONITRILE	N.D.	22.4
BENZENE	N.D.	2.1
bis(CHLOROMETHYL)ETHER	N.D.	703.1
BROMOFORM	N.D.	5.6
CARBON TETRACHLORIDE	N.D.	5.6
CHLOROBENZENE	N.D.	2.1
CHLORODIBROMOMETHANE	N.D.	5.6
CHLOROETHANE	N.D.	11.1
2-CHL'ETHYL V'L ETHER	N.D.	70.3
CHLOROFORM	11.0	2.1
DICHLOROBROMOMETHANE	N.D.	3.5
1,1-DICHLOROETHANE	N.D.	7.8
1,2-DICHLOROETHANE	111.6	4.2
1,1-DICHLOROETHYLENE	N.D.	9.3
1,2-DICHLOROPROPANE	N.D.	3.5
CIS-1,3-DICHLOROPROPENE	N.D.	4.0
TRANS-1,3-DICHL'PROPENE	N.D.	3.5
ETHYL BENZENE	N.D.	3.7
METHYL BROMIDE	N.D.	8.6
METHYL CHLORIDE	N.D.	4.2
METHYLENE CHLORIDE	1,013.5	2.2
Sym-TETRAChl'ETHANE	N.D.	2.1
TETRAChLOROETHYLENE	9.2	4.9
TOLUENE	88.9	2.1
1,2-t-DICHL'ETHYLENE	N.D.	5.7
1,1,1-TRICHLO'ETHANE	N.D.	4.6
1,1,2-TRICHLO'ETHANE	N.D.	4.2
TRICHLOROETHYLENE	10.1	4.6
TRICHL'FLUOROMETHANE	N.D.	5.6
VINYL CHLORIDE	N.D.	4.2

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

02-26-1985

SL#11487 40 ml extracted of sample FIELD BLANK+20 UL I.S.

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
ACROLEIN	N.D.	85.0
ACRYLONITRILE	N.D.	49.3
BENZENE	N.D.	2.1
bis(CHLOROMETHYL)ETHER	N.D.	703.1
BROMOFORM	N.D.	7.2
CARBON TETRACHLORIDE	N.D.	8.2
CHLOROBENZENE	N.D.	2.3
CHLORODIBROMOMETHANE	N.D.	5.6
CHLOROETHANE	N.D.	24.5
2-CHL'ETHYL V'L ETHER	N.D.	104.5
CHLOROFORM	N.D.	3.8
DICHLOROBROMOMETHANE	N.D.	3.8
1,1-DICHLOROETHANE	N.D.	17.2
1,2-DICHLOROETHANE	Detected less than	5.5
1,1-DICHLOROETHYLENE	N.D.	20.4
1,2-DICHLOROPROPANE	N.D.	3.9
CIS-1,3-DICHLOROPROPENE	N.D.	4.6
TRANS-1,3-DICHL'PROPENE	N.D.	3.9
ETHYL BENZENE	N.D.	5.1
METHYL BROMIDE	N.D.	19.0
METHYL CHLORIDE	N.D.	9.2
METHYLENE CHLORIDE	19.3 MLO	4.8
SYM-TETRACL'ETHANE	N.D.	2.5
TETRACHLOROETHYLENE	N.D.	6.0
TOLUENE	N.D.	2.4
1,2-t-DICHL'ETHYLENE	N.D.	12.6
1,1,1-TRICHLO'ETHANE	N.D.	10.2
1,1,2-TRICHLO'ETHANE	N.D.	4.4
TRICHLOROETHYLENE	N.D.	5.3
TRICHL'FLUOROMETHANE	N.D.	5.6
VINYL CHLORIDE	N.D.	7.9

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

02-27-1985

SL#11487A 40 ml extracted of sample 2ND FIELD BLANKK+20 UL I

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
ACROLEIN	N.D.	42.2
ACRYLONITRILE	N.D.	24.4
BENZENE	N.D.	2.1
bis(CHLOROMETHYL)ETHER	N.D.	703.1
BROMOFORM	N.D.	5.8
CARBON TETRACHLORIDE	N.D.	5.6
CHLOROBENZENE	N.D.	2.1
CHLORODIBROMOMETHANE	N.D.	5.6
CHLOROETHANE	N.D.	12.1
2-CHL'ETHYL V'L ETHER	N.D.	70.3
CHLOROFORM	N.D.	2.1
DICHLOROBROMOMETHANE	N.D.	3.5
1,1-DICHLOROETHANE	N.D.	8.5
1,2-DICHLOROETHANE	5.6	4.2
1,1-DICHLOROETHYLENE	N.D.	10.1
1,2-DICHLOROPROPANE	N.D.	3.5
CIS-1,3-DICHLOROPROPENE	N.D.	4.0
TRANS-1,3-DICHL'PROPENE	N.D.	3.5
ETHYL BENZENE	N.D.	4.1
METHYL BROMIDE	N.D.	9.4
METHYL CHLORIDE	N.D.	4.6
METHYLENE CHLORIDE	60.3 MLD	2.4
SYM-TETRACL'ETHANE	N.D.	2.1
TETRACHLOROETHYLENE	N.D.	4.9
TOLUENE	N.D.	2.1
1,2-t-DICHL'ETHYLENE	N.D.	6.2
1,1,1-TRICHLO'ETHANE	N.D.	5.0
1,1,2-TRICHLO'ETHANE	N.D.	4.2
TRICHLOROETHYLENE	N.D.	4.6
TRICHL'FLUOROMETHANE	N.D.	5.6
VINYL CHLORIDE	N.D.	4.2

SHRADER LABORATORIES
QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

03-07-1985

SL#11488 750 ml extracted of sample PRIMARY INFLUENT WEEK #1

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
D5-NITROBENZENE	45.7	3.5
D8-NAPHTHALENE	53.4	1.6
ACENAPHTHENE	N.D.	3.3
ACENAPHTHYLENE	N.D.	1.8
ANTHRACENE	N.D.	2.4
BENZIDINE	N.D.	30.4
BENZO(a)ANTHRACENE	N.D.	14.8
BENZO(a)PYRENE	N.D.	42.9
3,4-BENZOFUORANTHENE	N.D.	31.3
BENZO(ghi)PERYLENE	N.D.	3.0
BENZO(k)FLUORANTHENE	N.D.	37.7
bis(2-CHLOROETHOXYMETHANE	N.D.	4.6
bis(2-CHLOROETHYL)ETHER	N.D.	2.3
bis(2-CHLOROISOPROPYL)ETHER	N.D.	21.0
bis(2-ETHYLHEXYL)PHTHALATE	1,900.3	53.7
4-BROMOPHENYL PHENYL ETHER	N.D.	14.0
BUTYL BENZYL PHTHALATE	N.D.	48.4
2-CHLORONAPHTHALENE	N.D.	2.4
4-CHLOROPHENYL PHENYL ETHER	N.D.	6.9
CHRYSENE	N.D.	16.3
DIBENZO(a,h)ANTHRACENE	N.D.	3.0
1,2-DICHLOROBENZENE	N.D.	3.4
1,3-DICHLOROBENZENE	N.D.	3.3
1,4-DICHLOROBENZENE	N.D.	3.1
3,3'-DICHLOROBENZIDINE	Detected less than	160.6
DIETHYL PHTHALATE	28.4	17.3
DIMETHYL PHTHALATE	N.D.	2.9
DI-n-BUTYL PHTHALATE	29.7	4.0
2,4-DINITROTOLUENE	N.D.	31.1
2,6-DINITROTOLUENE	N.D.	30.3
DI-n-OCTYL PHTHALATE	N.D.	47.3
1,2-DIPHENYLHYDRAZINE	N.D.	3.2
FLUORANTHENE	Detected less than	4.9
FLUORENE	N.D.	3.2
HEXACHLOROBENZENE	N.D.	10.3
HEXACHLOROBUTADIENE	N.D.	12.3
HEXACHLOROCYCLOPENTADIENE	N.D.	23.1
HEXACHLOROETHANE	N.D.	7.7
INDENO(123-cd)PYRENE	N.D.	2.5
ISOPHORONE	N.D.	2.1
NAPHTHALENE	22.6	1.6
NITROBENZENE	N.D.	3.4
N-NITROSO-DIMETHYLAMINE	N.D.	11.1
N-NITROSO-DI-n-PROPYLAMINE	N.D.	42.4
N-NITROSO-DIPHENYLAMINE	N.D.	9.6
PHENANTHRENE	3.8	2.2
PYRENE	Detected less than	5.5
1,2,4-TRICHLOROBENZENE	N.D.	4.8

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

03-07-1985

SL#11488 750 ml extracted of sample PRIMARY INFLUENT WEEK #1

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
D5-PHENOL Surrogate	34.8	2.4
2-FLUOROPHENOL Sur	35.9	4.2
2-CHLOROPHENOL	N.D.	3.8
2, 4-DICHLOROPHENOL	N.D.	6.2
2, 4-DIMETHYLPHENOL	N.D.	4.0
4, 6-DINITRO-O-CRESOL	N.D.	20.9
2, 4-DINITROPHENOL	N.D.	32.3
2-NITROPHENOL	N.D.	12.8
4-NITROPHENOL	N.D.	13.2
P-CHLORO-M-CRESOL	N.D.	5.5
PENTACHLOROPHENOL	N.D.	23.3
PHENOL	36.0	2.3
2, 4, 6-TRICHLOROPHENOL	N.D.	9.6

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

03-07-1985

SL#11488 750 ml extracted of sample PRIMARY INFLUENT WEEK #1

COMPOUND	CONCENTRATION Micrograms/Liter	D. L.
ALDRIN	N. D.	64.7
A-BHC	N. D.	29.4
B-BHC	N. D.	34.1
G-BHC (LINDANE)	N. D.	40.3
D-BHC	N. D.	54.1
CHLORDANE	N. D.	34.1
4, 4'-DDD	N. D.	46.3
4, 4'-DDE	N. D.	55.2
4, 4'-DDT	N. D.	78.5
HELDREN	N. D.	51.6
ENDOSULFAN I	N. D.	50.1
ENDOSULFAN II	N. D.	90.2
ENDOSULFAN SULFATE	N. D.	254.6
ENDRIN	N. D.	394.2
HEPTACHLOR	N. D.	52.3
HEPTACHLOR EPOXIDE	N. D.	79.9
TOXAPHENE	N. D.	300.7
ENDRIN ALDEHYDE	N. D.	74.2
TETRACHLORODIBENZO-P-DIOXIN	N. D.	69.5
PCB-1016	N. D.	15.0
PCB-1221	N. D.	15.9
PCB-1232	N. D.	22.4
PCB-1242	N. D.	17.7
PCB-1248	N. D.	38.6
PCB-1254	N. D.	67.3
PCB-1260	N. D.	188.6

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

03-07-1985

SL#11489 750 ml extracted of sample PRIMARY INFLUENT WEEK # 2

COMPOUND	CONCENTRATION Micrograms/Liter	D. L.
D5-NITROBENZENE	33.1	5.1
D8-NAPHTHALENE	56.9	2.0
ACENAPHTHENE	N.D.	3.5
ACENAPHTHYLENE	N.D.	2.1
ANTHRACENE	N.D.	2.8
BENZIDINE	N.D.	23.5
BENZO(a)ANTHRACENE	N.D.	8.6
BENZO(a)PYRENE	N.D.	21.9
3,4-BENZOFUORANTHENE	N.D.	16.1
BENZO(ghi)PERYLENE	N.D.	3.0
BENZO(k)FLUORANTHENE	N.D.	19.4
bis(2-CHLOROETHOXYMETHANE	N.D.	5.5
bis(2-CHLOROETHYL)ETHER	N.D.	3.0
bis(2-CHLOROISOPROPYL)ETHER	N.D.	31.2
bis(2-ETHYLHEXYL)PHTHALATE	317.0	31.7
4-BROMOPHENYL PHENYL ETHER	N.D.	13.3
BUTYL BENZYL PHTHALATE	N.D.	27.6
2-CHLORONAPHTHALENE	N.D.	2.8
4-CHLOROPHENYL PHENYL ETHER	N.D.	6.7
CHRYSENE	N.D.	9.4
DIBENZO(a,h)ANTHRACENE	N.D.	3.0
1,2-DICHLOROBENZENE	N.D.	5.0
1,3-DICHLOROBENZENE	N.D.	4.9
1,4-DICHLOROBENZENE	N.D.	4.6
3,3'-DICHLOROBENZIDINE	132.5	93.0
DIETHYL PHTHALATE	Detected less than	16.9
DIMETHYL PHTHALATE	N.D.	3.4
DI-n-BUTYL PHTHALATE	14.2	4.2
2,4-DINITROTOLUENE	N.D.	30.3
2,6-DINITROTOLUENE	N.D.	35.5
DI-n-OCTYL PHTHALATE	N.D.	27.0
1,2-DIPHENYLHYDRAZINE	N.D.	2.8
FLUORANTHENE	Detected less than	4.1
FLUORENE	N.D.	3.1
HEXACHLOROBENZENE	N.D.	9.8
HEXACHLOROBUTADIENE	N.D.	13.0
HEXACHLOROCYCLOPENTADIENE	N.D.	27.0
HEXACHLOROETHANE	N.D.	11.5
INDENO(123-cd)PYRENE	N.D.	2.5
ISOPHORONE	N.D.	2.5
NAPHTHALENE	17.4	1.9
NITROBENZENE	N.D.	5.1
N-NITROSO-DIMETHYLAMINE	N.D.	18.5
N-NITROSO-DI-n-PROPYLAMINE	N.D.	63.0
N-NITROSO-DIPHENYLAMINE	N.D.	8.6
PHENANTHRENE	Detected less than	2.3
PYRENE	N.D.	4.2
1,2,4-TRICHLOROBENZENE	N.D.	5.8

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

03-07-1985

SL#11489 750 ml extracted of sample PRIMARY INFLUENT WEEK # 2

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
D5-PHENOL Surrogate	29.0	3.1
2-FLUOROPHENOL Sur	27.5	4.9
2-CHLOROPHENOL	N.D.	4.9
2, 4-DICHLOROPHENOL	N.D.	8.3
2, 4-DIMETHYLPHENOL	N.D.	5.9
4, 6-DINITRO-O-CRESOL	N.D.	20.3
2, 4-DINITROPHENOL	N.D.	37.7
2-NITROPHENOL	N.D.	19.0
4-NITROPHENOL	N.D.	15.4
P-CHLORO-M-CRESOL	N.D.	5.5
PENTACHLOROPHENOL	N.D.	22.2
PHENOL	28.3	2.9
2, 4, 6-TRICHLOROPHENOL	N.D.	9.6

SHRADER LABORATORIES

QUANTITATION SUMMARY

Customer : CITY OF KALAMAZOO

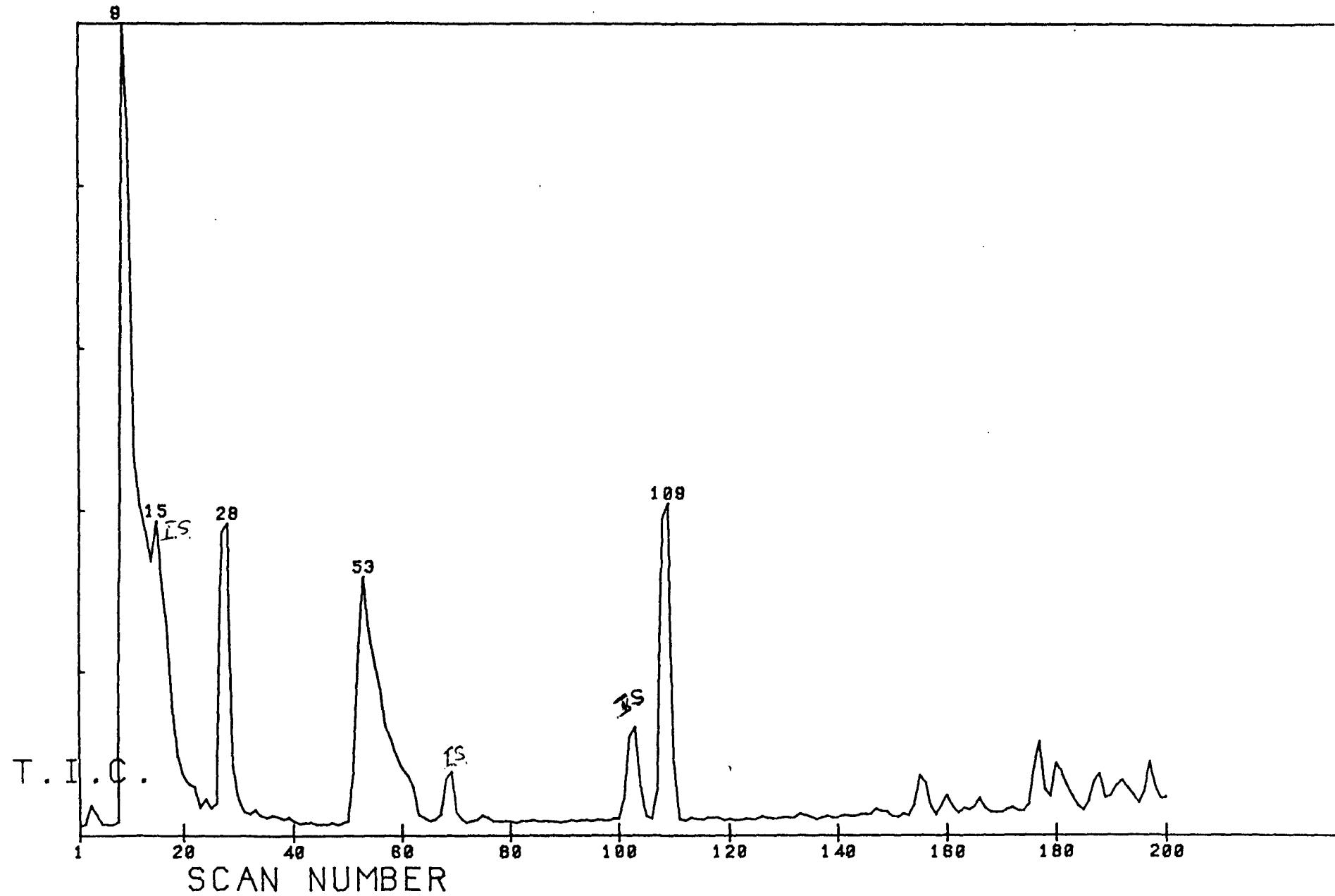
03-07-1985

SL#11489 750 ml extracted of sample PRIMARY INFLUENT WEEK # 2

COMPOUND	CONCENTRATION Micrograms/Liter	D.L.
ALDRIN	N.D.	51.0
A-BHC	N.D.	27.8
B-BHC	N.D.	33.2
G-BHC (LINDANE)	N.D.	38.1
D-BHC	N.D.	39.8
CHLORDANE	N.D.	33.2
4, 4'-DDD	N.D.	26.1
4, 4'-DDE	N.D.	36.6
4, 4'-DDT	N.D.	44.0
DIELDRIN	N.D.	32.3
ENDOSULFAN I	N.D.	39.8
ENDOSULFAN II	N.D.	53.1
ENDOSULFAN SULFATE	N.D.	139.4
ENDRIN	N.D.	233.1
HEPTACHLOR	N.D.	54.1
HEPTACHLOR EPOXIDE	N.D.	63.5
TOXAPHENE	N.D.	152.7
ENDRIN ALDEHYDE	N.D.	46.5
TETRACHLORODIBENZO-P-DIOXIN	N.D.	39.4
PCB-1016	N.D.	16.0
PCB-1221	N.D.	16.7
PCB-1232	N.D.	21.2
PCB-1242	N.D.	18.9
PCB-1248	N.D.	29.5
PCB-1254	N.D.	42.1
PCB-1260	N.D.	104.1

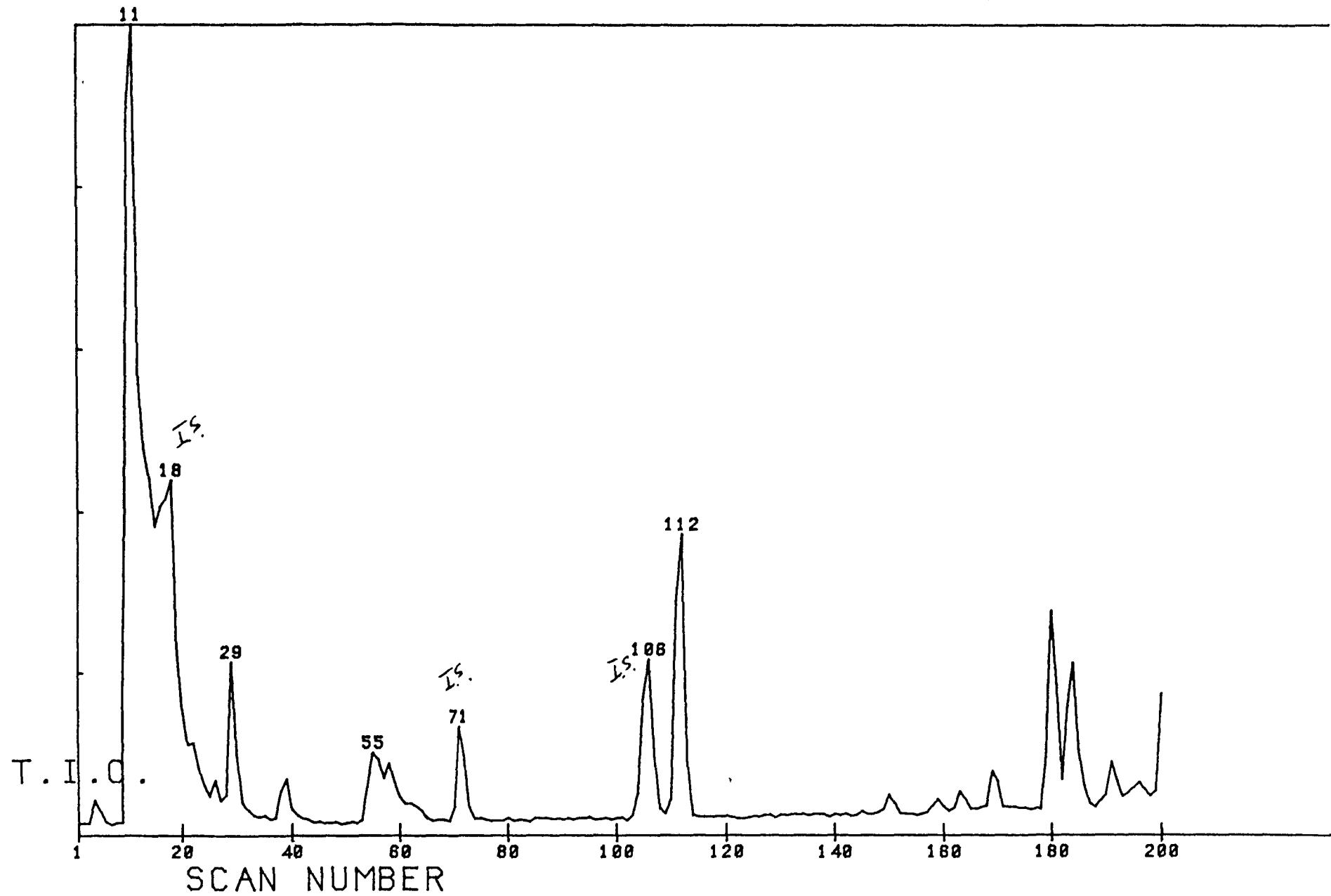
SHRADER LABORATORIES

11481C COMPOSITE OF VOC 1A,2A,3A (2/13/85)



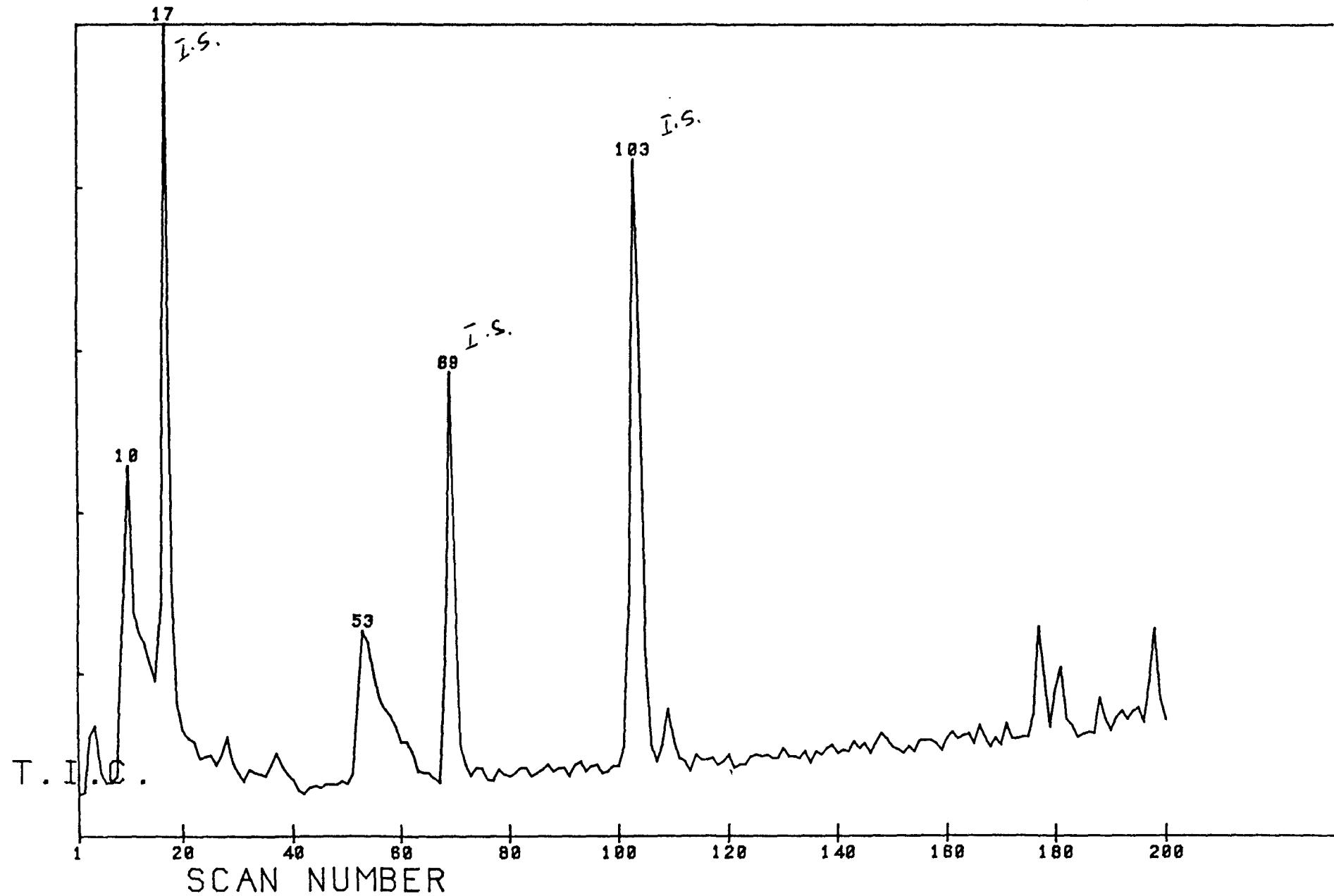
SHRADER LABORATORIES

11484C COMPOSITE OF VOC 4A,5A,6A (2/20/84)



SHRADER LABORATORIES

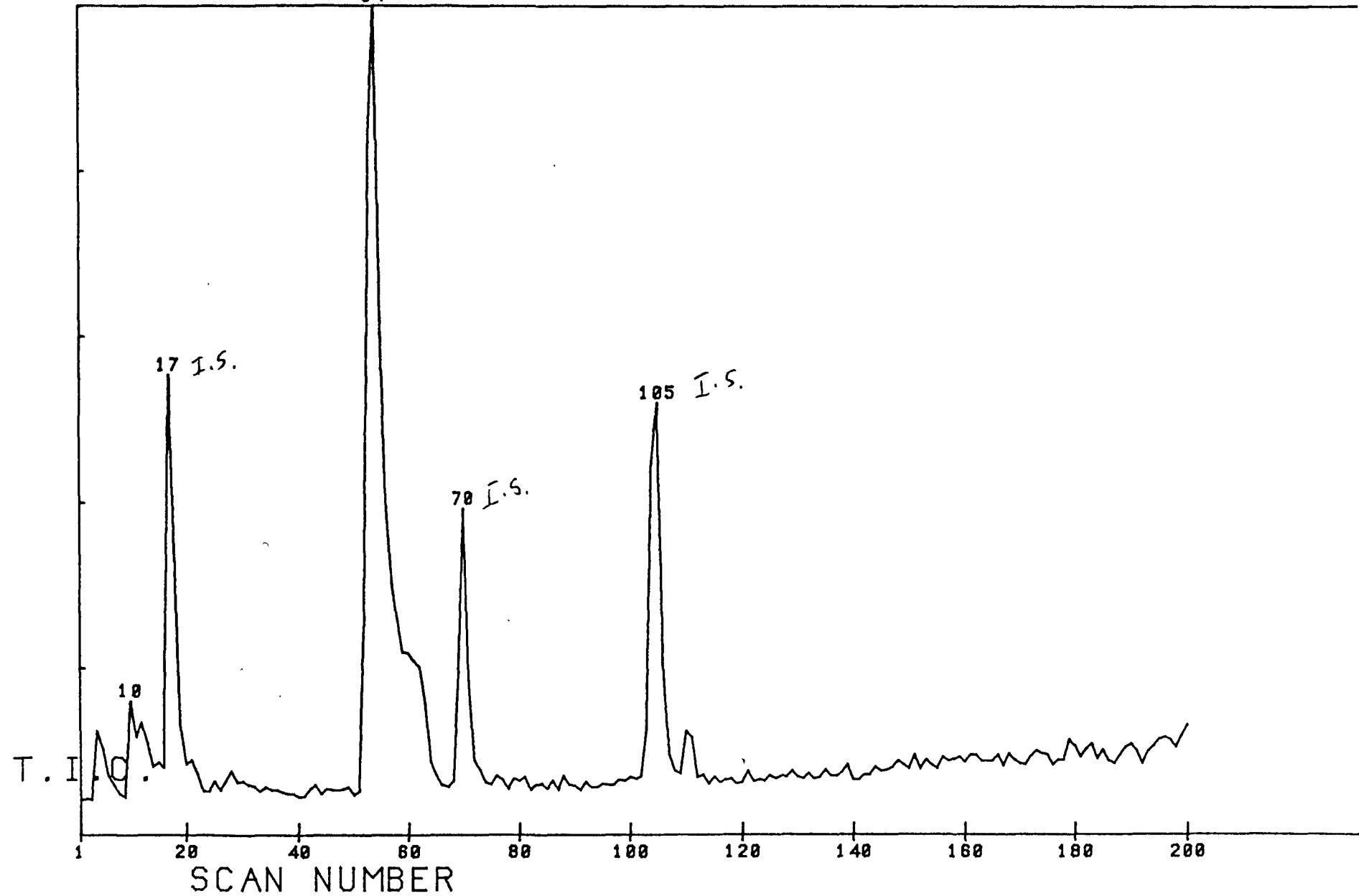
11487A 2ND FIELD BLANKK+20 UL I.S. GAIN 500



SHRADER LABORATORIES

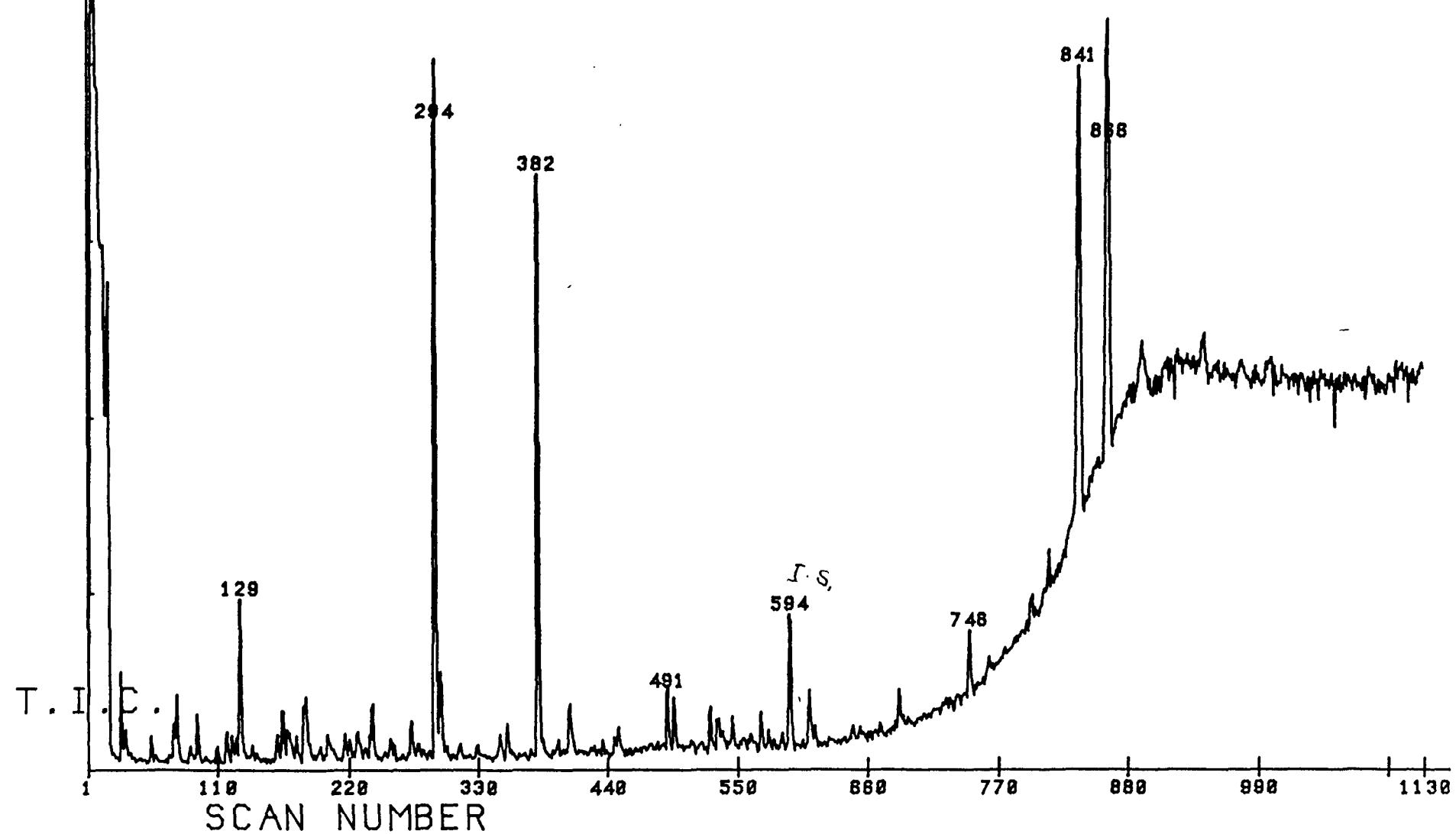
11487 FIELD BLANK +20 UL I.S.

54



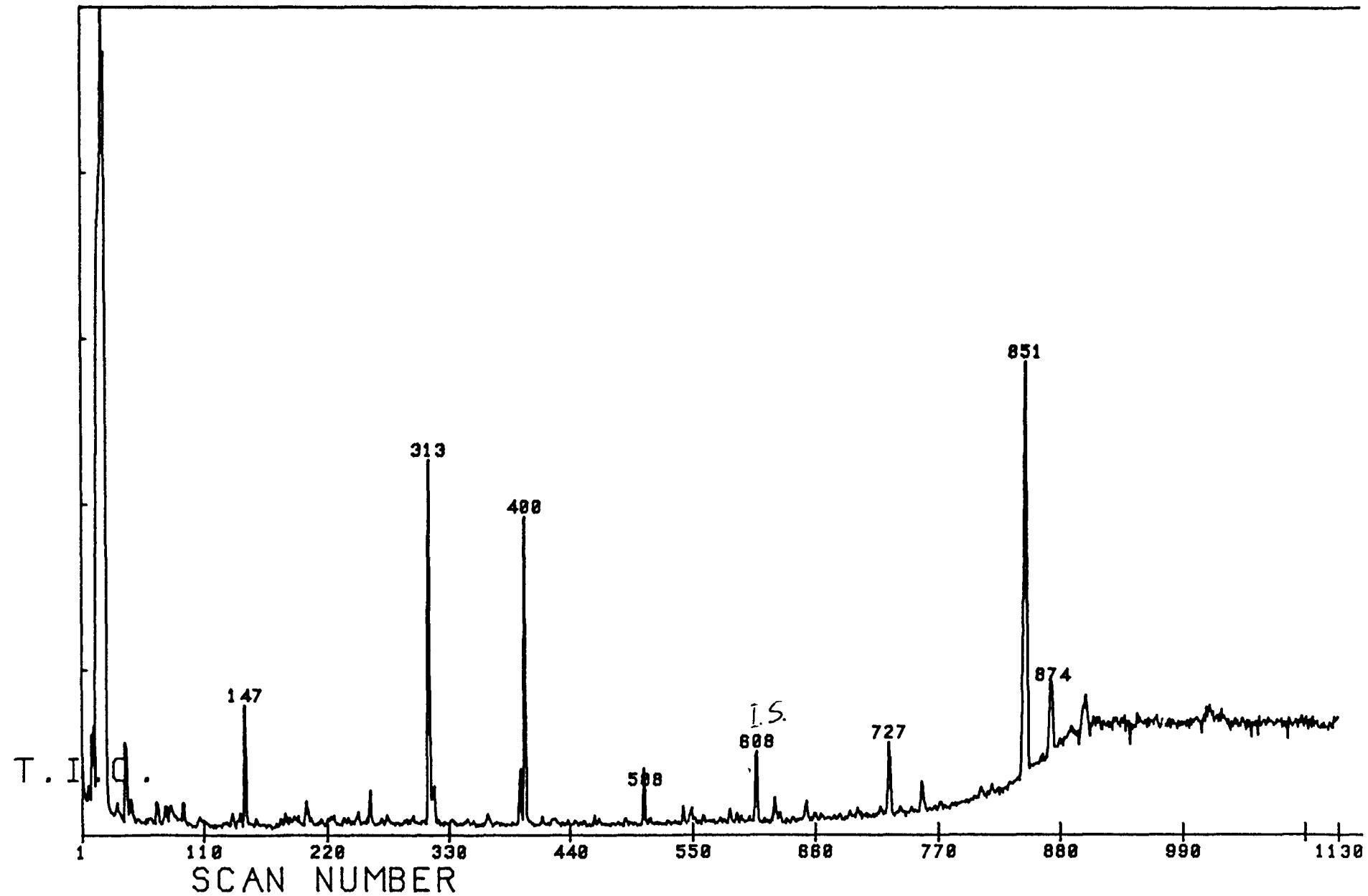
SHRADER LABORATORIES

11488 PRIMARY INFLUENT WEEK # 1



SHRADER LABORATORIES

11489 PRIMARY INFLUENT WEEK # 2



City of Kalamazoo

INTER-OFFICE **MEMO**

Bob McCulfor, Senior Chemist

To: Ken Leanin, Laboratory Supervisor

From: Jean Eldred, Industrial Waste Compliance Officer
Jack A. Wagemaker, Industrial Services Supervisor

Date: February 28, 1985

Subject: Trace Organics Analyses

J. Thomas
J. Eldred

When we receive approval of our Industrial Pretreatment Program, we will be required to analyze for several organic compounds. Attached is an estimate of compounds and number of analyses needed on an annual basis. Do we have the capability of handling these analyses in-house? If not, who will make the necessary arrangements with contract laboratories?

We are available to discuss this if needed.

h

attach

c Merchant
Amundson
File

Trace Organics/IPP

<u>COMPOUND</u>	<u>ANNUAL TOTAL</u>
Methylene Chloride	192
Phenol	208
Phenanthrene	152
Bis (2-ethylhexyl) phthalate	8
Di-n-butylphthalate	48
Benzyl butyl phthalate	8
Diethyl phthalate	8
Acrolein	96
Tetrachloroethylene	48
Naphthalene	48
Nitrobenzene	48

Ken

STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

THOMAS J ANDERSON
E. R. CAROLLO
MARLENE J. FLUHARTY
STEPHEN F MONSMA
O. STEWART MYERS
RAYMOND POUPORE
HARRY H. WHITELEY

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

RONALD O. SKOOG, Director

District 12 Headquarters

P.O. Box 355, Plainwell, Michigan 49080

August 7, 1985

Richard G. Simms, P.E.
General Superintendent
Department of Public Utilities
Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

RE: Short Term Monitoring

Dear Mr. Simms:

I have reviewed the comments made by Jean Eldred and Bruce Merchant regarding the short term monitoring requirements conveyed in my July 5, 1985 letter.

It is our intention to split the first sample for metals analysis only. It's not necessary to analyze an undigested sample. I recognize that time is of essence and that too much time may be required to analyze and compare the split samples before proceeding with the short term monitoring. You may complete the short term monitoring in anticipation of favorable results of the split sample analysis. However, if the results of split sampling put the validity of the results of sample analysis in doubt, additional sampling will be required.

When the final effluent has stabilized after the new plant is in full operation you should contact John Vollmer of this office to arrange for the split sampling.

I confirmed with Bill Creal that the level of detection (LOD) for cadmium can be changed to 0.5 ug/l. However, the LOD for silver is to remain 0.2 ug/l. It is acceptable to report as not detected any results that are less than 0.2 ug/l. Values greater than or equal to 0.2 ug/l must be quantified to establish effluent limits.

The reasons for changing the metals detection levels are based on Rule 57 of Part 4 of the Water Resources Commission Rules.

The method of analysis for ethyl benzene is 602/624, as suggested by Jean Eldred. I apologize for not catching that error in transcription.

(continued)

Richard G. Simms, P.E.
General Superintendent
Department of Public Utilities
Water Reclamation Plant
Page 2
August 7, 1985

EPA method 605 requires HPLC. This is the prescribed method and must be used for 3,3¹ dichlorobenzidine (DCB) analysis in the water matrix.

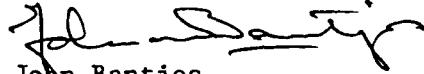
The LOD for DCB as well as for PCB in sludge is admittedly not well established. However 10 mg/kg (dry weight) should be attainable.

The proposed sampling method for volatile organics is four (4) grab samples during an eight (8) hour period. It is not clear whether these samples will be analyzed individually. Grab samples taken to analyze for volatile organics should not be composited.

If you have further questions in this matter, please contact me at this office.

Sincerely,

SURFACE WATER QUALITY DIVISION


John Bantjes
Plainwell District
616-685-9886

JB:cs

cc: B.C. Moore
Wm. Creal
G. Saalfeld
J. Vollmer
P. LeBlanc

STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

THOMAS J ANDERSON
E R CAROLLO
MARLENE J FLUHARTY
STEPHEN F MONSMA
O STEWART MYERS
RAYMOND POUPORE
HARRY H WHITELEY

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

RONALD O. SKOOG, Director

District 12 Headquarters
P.O. Box 355, Plainwell, Michigan 49080

June 3, 1985

Ms. Jeanne Eldred
Kalamazoo Wastewater Treatment Plant
1415 North Harrison
Kalamazoo, Michigan 49007

Dear Ms. Eldred:

You previously corresponded with this office concerning the Kalamazoo Psychiatric Hospital's power plant. In that letter, and in subsequent conversations, you alerted me to the high suspended solids and COD reading in samples which you obtained from this facility's ash system discharge. I am pleased to be able to tell you that the hospital has done extensive pollution abatement work on the power plant. This work included removing the old ash system from the discharge and installing a dry system in its place. This work was completed on May 28, 1985. Their present discharge consists mainly of noncontact cooling water and water from storm drains.

Sincerely,

SURFACE WATER QUALITY DIVISION

A handwritten signature in cursive ink that appears to read "John Vollmer".

John Vollmer
Plainwell District
616-685-9886

JV:ek

cc: Fred Morley

ten -

have you noticed an improvement (i.e.
decrease of solids) in their samples?

A handwritten signature in cursive ink that appears to read "Jean".

Leanin

MDNR required 6-wks monitoring
"official list"

<u>Parameter</u>	<u>Monitoring/Detection</u>		<u>Frequency and Duration</u>	<u>Sample Type</u>
	<u>Method</u>	<u>Limit</u>		
Arsenic		50 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Cadmium	0.5	0.2 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Hexavalent Chromium		5 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Total Chromium		50 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Copper		20 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Cyanide (amenable)		5 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Lead		10 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Selenium		10 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Silver		0.2 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Zinc		50 ug/l	1 x weekly for 6 weeks	24 hr. comp.
Chloroform	601/624	10 ug/l	1 x weekly for 6 weeks	Grab
1,2 Dichloroethane	601/624	10 ug/l	1 x weekly for 6 weeks	Grab
Ethyl Benzene	602/624	10 ug/l	1 x weekly for 6 weeks	Grab
Methylene Chloride	601/624	10 ug/l	1 x weekly for 6 weeks	Grab
Tetrachloroethylene	601/624	10 ug/l	1 x weekly for 6 weeks	Grab
Toluene	602/624	10 ug/l	1 x weekly for 6 weeks	Grab
Trichloroethylene	601/624	10 ug/l	1 x weekly for 6 weeks	Grab
3,3' Dichlorobenzidine	605	1.0 ug/l	1 x weekly for 6 weeks	Grab
Phenol	604/625	10 ug/l	1 x weekly for 6 weeks	Grab
Xylene	602/624	10 ug/l	1 x weekly for 6 weeks	Grab
Styrene	602/624	10 ug/l	1 x weekly for 6 weeks	Grab
PCBs	608	0.1 ug/l	1 x weekly for 6 weeks	Grab

Primary Sludge Analysis

Prior to Wet Air
Oxidation*

PCB	10 mg/kg	1 x weekly for 6 weeks	Composite Grab
3,3' Dichlorobenzidine	10 mg/kg	1 x weekly for 6 weeks	Composite Grab

*Sludge analysis for PCB and 3,3' Dichlorobenzidine may be discontinued after three consecutive sample analyses during the short-term monitoring program indicate that these substances are not present at the level of detection.

-
- b. On or before January 31, 1986, the City shall revise Section 28-17(e) of the City's sewer use ordinance to assure the public's accessibility to information used in the determination of nondomestic user compliance with the City's pretreatment requirements. These changes shall be consistent with the Michigan Freedom of Information Act and with 40 CFR 403.14.
 - c. On or before April 30, 1986, the City shall submit sufficient data to verify the pollutant removal rates used in the calculation of allowable pollutant influent mass loadings and provide the calculated allowable pollutant influent loading for each parameter of concern.

City of Kalamazoo

INTER-OFFICE **MEMO**

To: Rohel W. Amundson, Water Quality General Supervisor

From: Bruce E. Merchant, Water Quality Assurance Officer *BEM*

Date: March 29, 1985

Subject: Industrial Services Prep Laboratory Requirements

Four (4) areas have been addressed as they relate to minimum requirements needed for an Industrial Services Prep Laboratory. These are:

- I. Cleanup procedures and requirements.
- II. Storage space.
- III. Vehicle space.
- IV. Office space.

Attached are several pages that define and describe these areas in detail and specify why these requirements are being made. Also included are details and photographs of the current space being used and why they are inadequate for future needs.

It must also be noted that for any long-term solution considered, it is mandatory that all four (4) areas listed above be in the same physical location and in close proximity to ensure proper and adequate functioning of the Industrial Services Group.

d

attach

c J. Eldred
J. Wagemaker
K. Leanin✓
File

I. SAMPLER AND SAMPLE BOTTLE CLEANUP PROCEDURES AND REQUIREMENTS

Several procedures currently in use by the Industrial Services Group are attached that guarantee proper sampler and sample bottle cleanup to meet U.S. EPA requirements, safety considerations and the needs of the Utilities Laboratory. These procedures are divided up into four (4) basic areas: Discussion, Reagents and Solutions Needed, Procedure, and Bibliography. The use of a uniform outline for these procedures facilitates consistency between procedures and the organization of the separate work areas involved.

The Utilities Laboratory (both the hoods in the main laboratory and the two hoods in the organics laboratory) are currently used for sampler and sample bottle cleanup and preparation by the Industrial Services Group. The use of properly functioning fume hoods for both the organics and metals glass sample bottles cleanup is mandated by the U.S. EPA and also by obvious safety considerations. In addition to the fumehood space being used, the Industrial Services staff also uses the Utilities Prep laboratory and several of the main laboratory sinks plus the laboratory's distilled and R.O. water systems to accomplish both sampler preliminary and final cleanup before and after the sampler is used in the field. Cleanup procedures for conventional, cyanide and grab sampling are also currently carried out using the Utilities Laboratory facilities.

The minimum present needs of the Industrial Services Group are being met by the arrangements now in effect with the Utilities Laboratory. These current arrangements and capabilities will be quickly and greatly exceeded, however, upon the addition of the Industrial Pretreatment Program (IPP) sampling requirements to the current workload. Predicted sample loads projected from the Greeley and Hansen report require as a minimum four (4) to six (6) samplers to be placed out in the field on a weekly basis to comply with this sampling schedule. This involves installing the samplers in the field the first day, changing sample bottles and/or tubing the second through the fourth day, and then retrieving and cleaning the samplers on the fifth day. These proposals definitely describe the following minimum acceptable requirements for a short-term prep laboratory/sampler cleanup area:

- A. At least 400 square feet of space for the prep laboratory complete with fume hoods and lab bench space of adequate size for six (6) Industrial Services personnel;
- B. A janitor-type sink (at least 2 feet square) within this prep lab space for preliminary sampler cleanup;
- C. Necessary equipment and supplies to successfully and adequately prepare and clean samplers and sample bottles to meet the minimum EPA requirements not only for sampling, but also for required quality assurance/quality control requirements.
- D. Adequate safety equipment, supplies, and procedures to ensure employee safety throughout the cleanup process;

- E. Proper storage area to maintain a corrosion-free environment that will ensure sampler and sample bottle integrity throughout the sampling and analytical process;
- F. Adequate and safe storage of corrosive and/or toxic chemical reagents, solutions, and solvents in use during the cleanup procedures; and
- G. Adequate supplies of distilled water to be obtained from private, outside sources or by the purchase of a separate distilled water system for the IPP Prep Laboratory.

II. EQUIPMENT STORAGE/REPAIR AREA

Currently we occupy a 200 square foot area. This space is already completely utilized. We use this storeroom for the following functions:

- A. Storage of all sampling, monitoring and safety equipment and tools.
- B. Work area to repair equipment and prepare for field use.
- C. "Office" space for techs--storage of maps and operations manuals.

As far as square-footage, the current area meets our current needs. But, it will not be sufficient for our needs when we implement IPP, for the following reasons:

- A. We are at capacity with our electrical outlets. I have been told it is not feasible to upgrade electrical in this area. We will need more outlets to charge batteries.
- B. We will be establishing an inventory of parts for sampling equipment. We will need more shelf space to store parts in an orderly manner.
- C. We are purchasing three additional samplers this year.
- D. The "bench space" (work area) for the existing crew is adequate, but when we triple the number of people, we will require a significant increase in work space.
- E. The existing storeroom is too noisy because of the pump motors in the immediate vicinity, also HVAC is inadequate (non-existent).

I have attached a list which shows the required scheduled sampling for IPP. The scheduled IPP sampling, when added to surcharge sampling, "unscheduled" sampling, compliance sampling and re-sampling (to cover sampler malfunction and other occurrences) will require setting up six to eight samplers (or more) per week. (Day 1 samplers set in field, days two through five bottles changed, day five samplers brought in and washed).

Pictures are attached which show current storeroom. The dimensions of the room are 8 feet by 24 feet. Also attached is a list of equipment stored in this area.

EQUIPMENT LIST:

1. Freezer (upright);
2. Refrigerator;
3. Freezer (chest type, inoperative, top used as workspace);
4. Two 2-drawer file cabinets;
5. Two desks;
6. Eleven samplers and extra bases;
7. Four flow meters;
8. Two 7-1/2 foot steel shelf units;
9. Several cases of bottles;
10. Person-lift (rescue device);
11. Scott paks
12. 500' vinyl tubing;
13. Tools, calibrating gases, batteries, chargers, portable blower, pH equipment;
14. Ice machine, requires water, electric and floor drain.

III. VEHICLE SPACE REQUIREMENTS

The Industrial Services Group requires three (3) vehicle spaces in an enclosed, secure location due to the type and nature of the equipment stored in them at any given time. Accommodations should also be made for the future addition of at least one (1) more vehicle.

IV. OFFICE SPACE REQUIREMENTS

The Tech II's (S-32's) will be required to do considerable paperwork in addition to their field sampling. Each will require a desk. Additionally, we will need facilities to store manuals and maps. We also will require a telephone for this area.

IPP FINAL REPORT ADDENDUM
DNR MEETING 4/13/83

Present at the meeting were Steve Holmi, Jim Forney, Bill Creal, Fred Morley, John Vollmer, Paul Blakeslee, and Jim Grant from the MDNR. Representing the City of Kalamazoo were Orlin Loen, Richard Simms, Jack Wagemaker, and Jean Eldred.

The DNR anticipates they will complete the IPP review by the end of April. They estimate the EPA review will be completed by the end of May. The EPA is co-reviewing four (4) municipalities to determine if the State will get approval authority: Kalamazoo, Battle Creek, Lansing, and Wyoming.

DNR comments on effluent metals concentrations: In the IPP we assumed the background metal concentrations in the Kalamazoo River were present at detection levels if there were no quantifiable results. The detection level for cadmium is changing from 2 $\mu\text{g}/\text{l}$ to 0.2 $\mu\text{g}/\text{l}$. The DNR is going to perform more analyses soon. We can assume "0" silver in the Kalamazoo River. In the case of mercury, the DNR recommends an effluent limit of 0.5 $\mu\text{g}/\text{l}$. The chronic limit for zinc has been relaxed. The new allowable chronic level is 172 $\mu\text{g}/\text{l}$ (old was 71 $\mu\text{g}/\text{l}$). This change allows us a discharge concentration of 292 $\mu\text{g}/\text{l}$ to the Kalamazoo River.

In the WWTP influent analyses, some metals were below detection limits. Instead of assuming metals are present at detection levels, we could use lower numbers where justified.

At this time, the Permits Section does not have sufficient data base to set effluent limits on metals for our plant.

Attached is a list of organics and a list of metals which we will be required to survey for four weeks. We need to submit a study plan to the DNR before commencing the survey.

Jean Eldred,
Industrial Surveillance Technician

j

c O. Loen
R. Simms
J. Wagemaker✓
File

DNR - Zora Choueifat

" " "

" " "

" " "

Khalid Al-Harbi 11/11/1985

DNR - SQUAD

DNR - SQUAD

DNR - Member Monitoring

DNR - Fire & EMS

Jean Eldred

Jack Udagama

CFLIN LCEV

Paul Blakely

Lynn Wilmer

Fred Whaley

Bill Crea

Tony

Steve Holly

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

April 12, 1983

TO: Fred Morley, Plainwell District, Surface Water Quality Division
FROM: James Forney, Toxic Chemical Evaluation Section ~~JCF~~
SUBJECT: Kalamazoo POTW, Effluent Monitoring Requirements

Based on a review of the data provided in the pilot plant study, TCES recommends that the city conduct the following monitoring as a TSMR requirement of their NPDES Permit.

<u>Parameter</u>	<u>EPA Method</u>	<u>Detection Limit (ug/l)</u>
Acrolein	603	10
1,2-Dichloroethane	601	1
Trichloroethylene	601	1
1,1,1,-Trichloroethane	601	1
Methylene chloride	601	1
Tetrachloroethylene	601	1
Pentachlorophenol	604	10
Toluene	602	1
Styrene	602	1
Xylene	602	1
Benzene	602	1

The analytical methods and the detection limits specified are recommendations. The City should submit a TSMR study plan to the MDNR for approval prior to commencing the survey; this study plan should specify the analytical methods and detection limits that will be employed. The City should sample and analyze the existing plant's effluent weekly for four weeks for all of the above parameters.

The above parameter list may be changed as new information is made available through the Industrial Pretreatment Program.

If you have any questions, contact me.

cc: S. Holmi, Permits
J. Grant/TCES Files

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

April 7, 1983

TO: Steve Holmi, Permits Section
Fred Morley, Compliance Section, Plainwell
FROM: William Creal, Ambient Monitoring Section *SC*
SUBJECT: Kalamazoo WWTP Effluent Monitoring

I recommend the following metals and cyanide be monitored according to usual TSMR requirements. Desired minimum detection levels are also recommended.

<u>Constituent</u>	<u>Detection Level (ug/l)</u>
Arsenic	50
Cadmium	0.5
Chromium	100
Copper	20
Cyanide Amenable to chlorination	10
Lead	20
Mercury	0.5
Nickel	100
Silver	1
Zinc	50

WC/pls

THE UPJOHN COMPANY

KALAMAZOO MICHIGAN 49001 U.S.A.
TELEPHONE (616) 323-4000

February 7, 1983

Mr. Richard Simms, P.E.
City of Kalamazoo
Sewage Treatment Plant
1415 N. Harrison Street
Kalamazoo, MI 49007

Dear Mr. Simms:

In the next few weeks we expect to change one of our fermentation production processes which will alter, to a small degree, our wastewater discharge to the City of Kalamazoo. At the 1982 production rate, this change will result in the following estimated increase over the old process for this specific product:

	BOD ₅ (kg)	S.S. (kg)
Annual increase	241,000	410,000
Typical daily increase	1,000	1,800

Any flow increase will be insignificant.

Please bear in mind that it has been many months since our fermentation production rate has been at capacity and therefore, for the short term, this change will not cause us to approach the higher loadings you have experienced in the past.

We are passing this information on in order to keep you informed of the long-term estimated waste load potential. Please call me at 323-7352 if you have any concern about this change.

Very truly yours,

Fred G. Rock

Fred G. Rock
Utilities Contract Administrator

bdm

IPP

Table 4
 CITY OF KALAMAZOO
 WASTEWATER RATE STUDY
 CURRENT AND PROPOSED WASTEWATER RATES

<u>Minimum Charge Per Billing Period</u>	<u>1984 CURRENT</u>	<u>1985 PROPOSED</u>	<u>FINAL</u>
GENERAL USERS AND CONTRACT INDUSTRIES			
QUARTERLY	\$ 9.30	\$ 8.90	
MONTHLY	4.55	4.50	
PORTAGE-MONTHLY	11,205.00	11,447.00	
GALESBURG-MONTHLY	1,371.00	1,298.00	
PARCHMENT-MONTHLY	1,659.00	1,607.00	
VICKSBURG-MONTHLY	1,428.00	1,380.00	
GULL LAKE-MONTHLY	1,238.00	1,835.00	
AUGUSTA-MONTHLY	321.00	447.00	
COMMODITY CHARGE PER CUBIC METER	<u>\$/Cubic Meter</u>	<u>\$/Cubic Meter</u>	
GENERAL USERS ^a			
INSIDE CITY	\$0.26	\$0.32	
OUTSIDE CITY	0.30	0.37	
CONTRACT INDUSTRIES			
UPJOHN	0.37	<u>0.55</u>	
NATIONAL GYPSUM	0.21	<u>0.31</u>	
GEORGIA PACIFIC	0.16	<u>0.26</u>	
JAMES RIVER	0.13	<u>0.23</u>	
MASTER METERED MUNICIPALITIES	0.20	0.26	
GALESBURG ^a	0.23	0.30	
SURCHARGES AND CREDITS ^b	<u>S/KILOGRAM</u>	<u>S/KILOGRAM</u>	
BOD ^c	\$0.078	\$0.181	
SS	0.161	0.233	
NH3	—	0.359	
SEPTAGE HAULERS	<u>DOLLARS</u>	<u>DOLLARS</u>	
BILLING CHARGE (\$ PER DUMPING)	\$2.35	\$2.50	
VOLUME CHARGE (\$ PER KG DUMPED)	0.007	0.010	

^a Summer water consumption used in calculation of wastewater bills shall not exceed 120 percent of winter water consumption for quarterly users whose winter quarter water consumption is less than 200 cubic meters, and monthly customers whose winter quarter average monthly water consumption does not exceed 66 cubic meters.

^b Credit given only to industrial users who install pretreatment facilities.

^c COD may be used at the option of the Director of Public Utilities as an estimate of BOD strength.

City of Kalamazoo

INTER-OFFICE **MEMO**

To: Ken Leanin, Laboratory Supervisor and Betsy Berg, Chemist

From: Jean Eldred, Industrial Waste Compliance Officer *J.Eldred*

Date: January 7, 1985

Subject: Projected Metals Analyses for 1985

Using the recommendations of Greeley and Hansen in the IPP Final Report, I have come up with some estimates for our metals analyses for 1985. Please note, these are only estimates. Once we have our IPP in full operation, we should be able to give more reliable estimates. Also, these estimates assume IPP in full operation all year.

A sample run generally consists of four (4) consecutive 24-hour composite samples for an account. There will be approximately 178 sample runs for metals in 1985.

$$178 \text{ samples runs} \times 4 = 712 \text{ samples for metals analysis.}$$

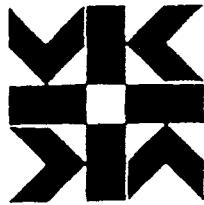
Some samples will require only one (1) metal, others as many as nine (9); however, an average would be four (4) metals per sample. I estimate a total of 2,842 metals determinations and 288 cyanides.

If you need more information, please let us know.

d

c J. Wagemaker
File

11/18/84 to in p.



CITY OF KALAMAZOO, MICHIGAN

January 15, 1986

Mr. John Bantjes
Water Quality Specialist
Surface Water Quality Division
P.O. Box 355
Plainwell, Michigan 49080

Dear Mr. Bantjes:

Attached please find the results of the short-term monitoring program, as required in our IPP approval letter, October 11, 1985.

The results of our Production Plated Plastics sampling were sent to you in a letter dated November 26, 1985. It is our understanding that Michigan Department of Natural Resources will calculate our effluent limitations both with and without the projected PPP discharge.

Please let us know if you have any questions, or if we can provide further information.

Sincerely,

Jean Eldred

Jean Eldred,
Industrial Services Supervisor

j

attach

c O. Loen
D. Schmidt
R. Simms
R. Amundson
✓ File

Sampling and Analysis Notes

1. A field blank was analyzed for metals each of the six (6) weeks. For silver, the first sample, the effluent concentration exceeded the blank (effluent 0.7 ug/l, blank 0.3 ug/l) however during the last five (5) weeks the effluent was equal to or less than the blank concentration.
2. For volatile organics, four (4) grab samples were collected per sampling interval, the samples were composited at the machine head immediately prior to analysis.
3. PCB's in the sludges were reported to us in mg/l, these numbers were converted to mg/kg based on each days total solids. (Attached tables show results in mg/l, mg/kg and the applicable total solids.)
4. The last two (2) weeks of sampling, the industrial primary was by-passed. For those two (2) weeks, the municipal influent represents the total plant influent, both flow and sample results. For weeks one (1) through four (4), the total plant influent would be the sum of the industrial and municipal influents. An attached table shows the flows.
5. During the first three (3) weeks of our sampling, the plant was still acclimating to the addition of powdered activated carbon as evidenced by total suspended solids concentrations in the effluent. Although we are still optimizing the operation of our advanced waste treatment plant, we feel that the last three (3) weeks data are more indicative of our abilities than the first three (3) weeks.
6. We stopped chlorinating our effluent on January 1, 1986. On October 31, 1985, however, we experienced difficulties and only chlorinated effluent for approximately three (3) hours. This could be a possible explanation for the presence of amenable cyanide in the effluent on that date.

WATER RECLAMATION PLANT - OPERATING DATA

Date	Industrial Influent Flow		Municipal Influent Flow		Effluent TSS
10/22/85	4.681	MGD	25.450	MGD	45 mg/l
10/27/85	4.857	MGD	21.891	MGD	49 mg/l
11/7/85	3.720	MGD	18.702	MGD	48 mg/l
11/15/85	4.160	MGD	25.925	MGD	13 mg/l
11/20/85	0	MGD	35.534	MGD	10 mg/l
11/25/85	0	MGD	34.119	MGD	4 mg/l

10/31/85 Chlorinated effluent only approximately three (3) hours

SAMPLE: MUNICIPAL PRIMARY SLUDGE TO THICKNER				DATE (RESULTS IN MG/KG)		
PARAMETER	10/22	10/27	11/7	11/14	11/20	11/25
3,3'-Dichloro-benzidine	<2.4	<1.33	<2.7	<1.1	<2.2	<9.1
PCB'S	<0.024	13.3*	1.7*	0.074	<0.022	<0.045

*Arcochlor 1254

SAMPLE: Industrial Sludge to Thickner				DATE (RESULTS IN MG/KG)		
PARAMETER	10/22	10/27	11/7	11/14	11/20	11/25
3,3'-Dichloro-benzidine	<12.5	<25	<8.3	<50	NO	SAMPLE
PCB'S	1.13*	<0.25	<0.083	<0.50	NO	SAMPLE

*Arcochlor 1254

Total Solids (MG/L)
DATE

SAMPLE	10/22	10/27	11/7	11/14	11/20	11/25
MUNICIPAL PRIMARY SLUDGE TO THICKNER	17,200	30,000	29,600	38,000	18,400	8,800
INDUSTRIAL PRIMARY SLUDGE TO THICKNER	800	800	4,800	800	N.S.*	N.S.*

* N.S. = No Sample

COMPOUND	SAMPLE: MUNICIPAL PRIMARY SLUDGE THICKNER						SAMPLE: INDUSTRIAL PRIMARY SLUDGE TO THICKNER					
	SAMPLE DATE: 1985 (RESULTS MG/L)						SAMPLE DATE: 1985 (RESULTS IN MG/L)					
	10/22	10/28	11/7	11/15	11/20	11/25	10/22	10/28	11/7	11/15	11/20	11/25
3,3'-Dichloro-benzidine	<0.040	<0.040	<0.080	<0.040	<0.040	<0.080	<0.010	<0.020	<0.040	<0.040	No Sample	No Sample
PCB'S*	<0.0004	0.400	0.05	0.0028	<0.0004	<0.0004	0.0009	<0.0002	<0.0004	<0.0004	No Sample	No Sample

*Arcochlor 1254

COMPOUND	SAMPLE: MUNICIPAL INFLUENT						SAMPLE: INDUSTRIAL INFLUENT						SAMPLE: TERTIARY EFFLUENT						
	SAMPLE DATE: 1985 (RESULTS MG/L)						SAMPLE DATE: 1985 (RESULTS IN MG/L)						SAMPLE DATE: 1985 (RESULTS IN MG/L)						
	10/ 22-23	10/ 27-28	11/ 7-8	11/ 15-16	11/ 20-21	11/ 25-26	10/ 22-23	10/ 27-28	11/ 7-8	11/ 15-16	11/ 20-21	11/ 25-26	10/ 22-23	10/ 27-28	11/ 7-8	11/ 15-16	11/ 20-21	11/ 25-26	
Methylene Chloride	1.0	0.63	0.087	0.19	0.17	0.12	<0.010	<0.010	<0.010	0.026			<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Chloroform							0.011	<0.010	0.046	<0.010	<0.010	0.010	0.018	<0.017	0.010	0.011			
X 1,2-Dichloroethane	0.29	0.69	0.26	0.16	0.014	0.24	<0.010	<0.010	<0.010	<0.010	<0.010	N	N	0.038	<0.010	0.055	0.11	0.048	0.031
Trichloroethylene							<0.010	<0.010	0.014	0.069	<0.010	0.050	<0.010	<0.010	<0.010	O	O	<0.010	
X Tetrachloroethylene	0.086	<0.010	0.021	0.016	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	S	S	<0.010	<0.010	<0.010	<0.010	<0.010	
Toluene							0.59	0.95	0.87	0.053	0.030	0.047	0.79	0.51	<0.010	<0.010	A	A	0.021
Ethyl Benzene							<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	M	M	<0.010	
X Xylenes							0.011	0.011	<0.010	0.049	<0.010	0.017	<0.010	<0.010	<0.010	P	P	<0.010	
Styrene							<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	L	L	<0.010	
Phenol							0.55	<0.010	0.14	<0.010	0.067	0.036	<0.010	<0.010	0.011	<0.010	E	E	<0.010
3,3'-Dichloro Benzidine							<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010			<0.010	
PCB'S*	<0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	<0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001			<0.0001	

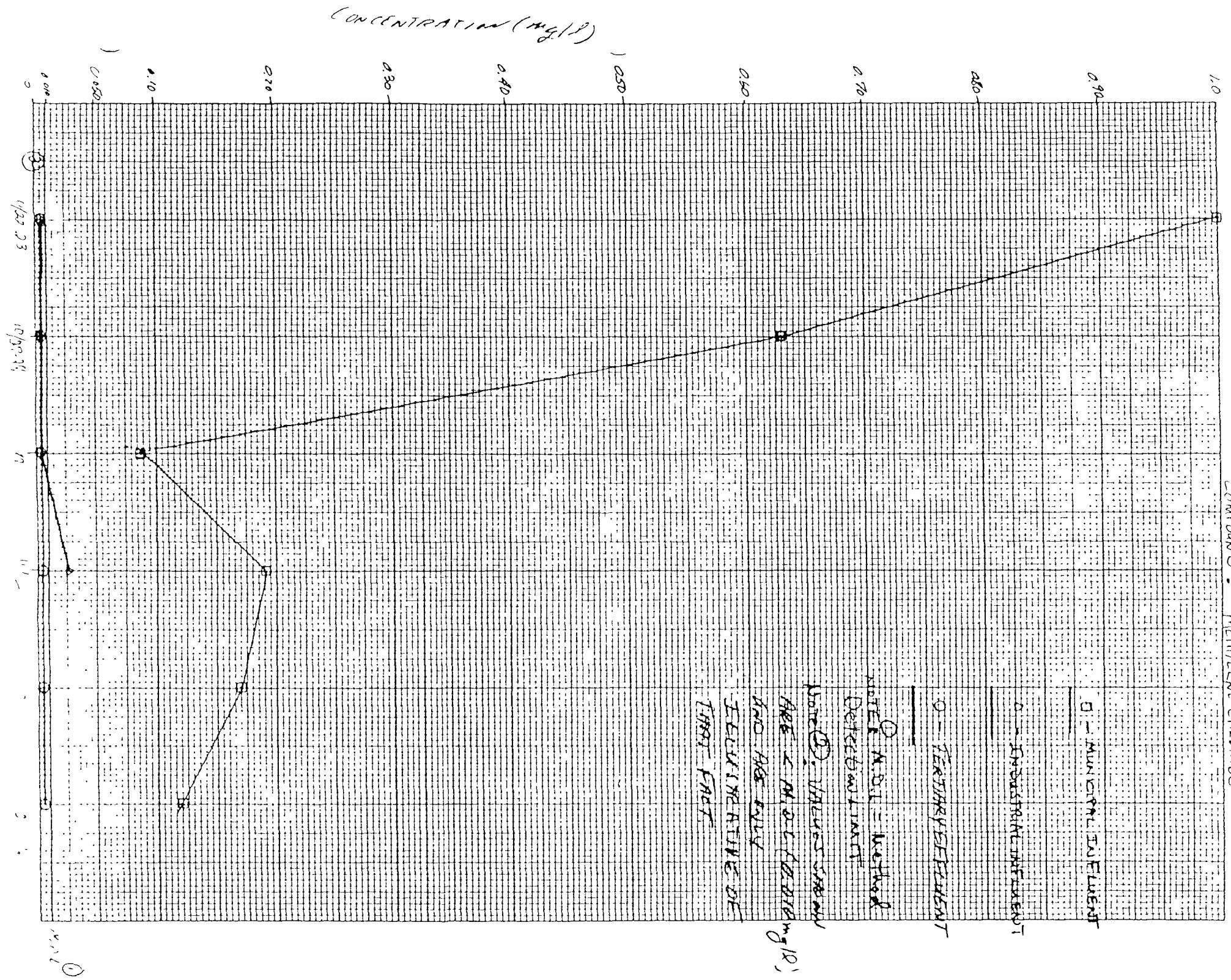
* Please note that these designations are all "less than" except for 10/27-28.

** Arochlor 1254, 0.0001 mg/l.

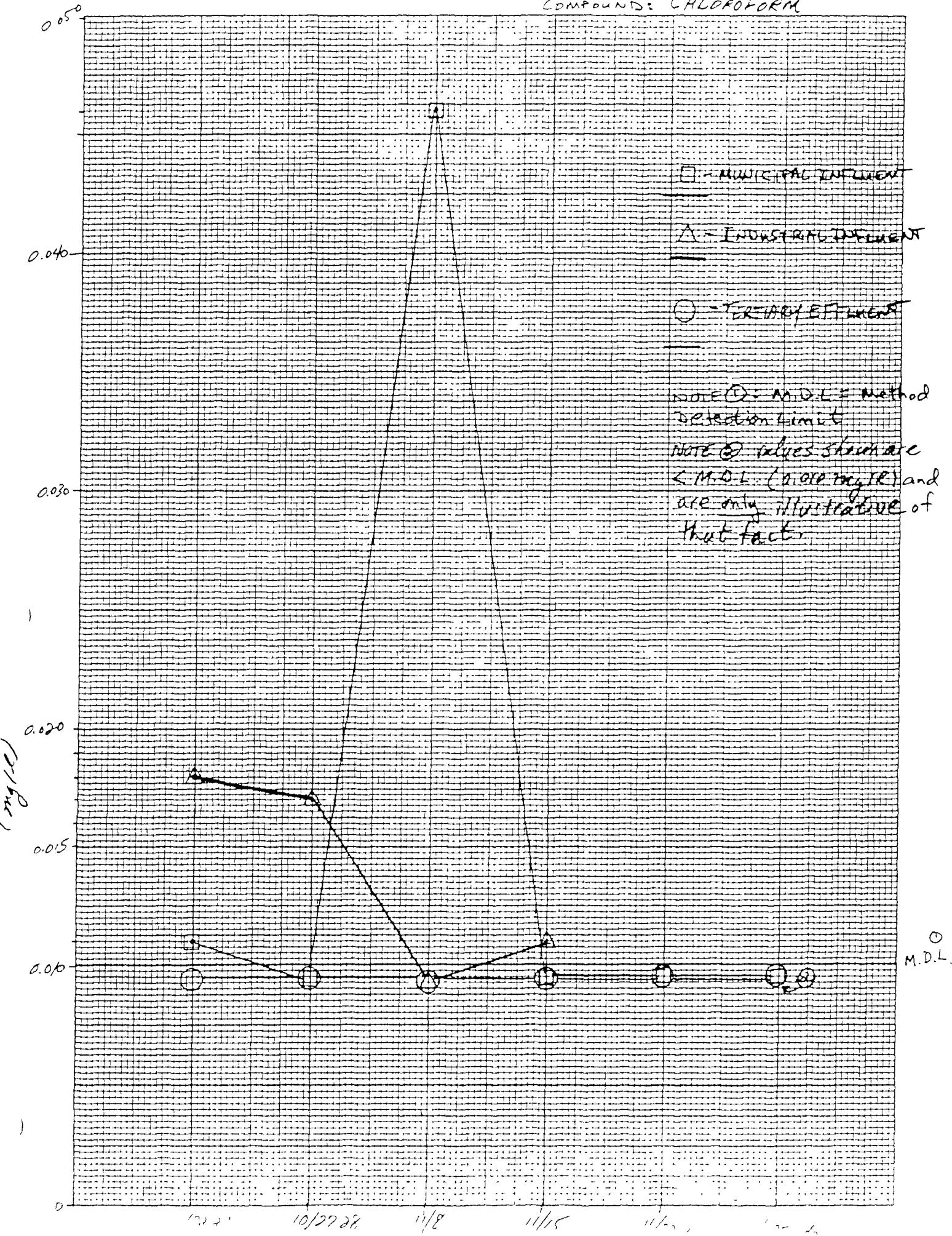
COMPOUND	SAMPLE: MUNICIPAL INFLUENT						SAMPLE: INDUSTRIAL INFLUENT						SAMPLE: TERTIARY EFFLUENT					
	SAMPLE DATE: 1985 (RESULTS ug/L)						SAMPLE DATE: 1985 (RESULTS IN ug/L)						SAMPLE DATE: 1985 (RESULTS IN ug/L)					
	10/ 22-23	10/ 27-28	11/ 7-8	11/ 15-16	11/ 20-21	11/ 25-26	10/ 22-23	10/ 27-28	11/ 7-8	11/ 15-16	11/ 20-21	11/ 25-26	10/ 22-23	10/ 27-28	11/ 7-8	11/ 15-16	11/ 20-21	11/ 25-26
Arsenic	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cadmium	0.7	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	N	N	85.0	<0.5	<0.5	<0.5	<0.5
Hex. Chromium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	0	0	<5	<5	<5	<5	<5	<5
Total Chromium	100	30	50	50	<30	30	<30	40	50	<30	S	S	<30	50	40	<30	<30	<30
Copper	23	10	160	180	110	100	20	200	20	<10	A	A	15	70	40	10	20	<10
Lead	15	<10	13	51	72	<10	10	35	<10	11	M	M	65	<10	12	<10	<10	<10
Selenium	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	P	P	<10	<10	<10	<10	<10	<10
Silver	7.6	0.8	5.5	5.9	9.1	0.7	<0.2	1.0	0.5	0.7	L	L	0.7	0.8	0.7	0.7	0.7	0.7
Zinc	360	30	290	320	200	160	60	200	130	50	E	E	220	80	120	30	40	110

Dates:	SAMPLE: MUNICIPAL INFLUENT						SAMPLE: INDUSTRIAL INFLUENT						SAMPLE: TERTIARY EFFLUENT					
	10/31 - 11/1	11/7 - 11/8	12/14 - 12/15	12/17 - 12/18	12/23 - 12/24	1/1 - 1/2/86	10/31 - 11/1	11/7 - 11/8	12/14 - 12/15	12/17 - 12/18	12/23 - 12/24	1/1 - 1/2/86	10/31 - 11/1	11/7 - 11/8	12/14 - 12/15	12/17 - 12/18	12/23 - 12/24	1/1 - 1/2/86
Cyanide ug/L (amenable)	<5	43	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	77	<5	<5	<5	<5	<5

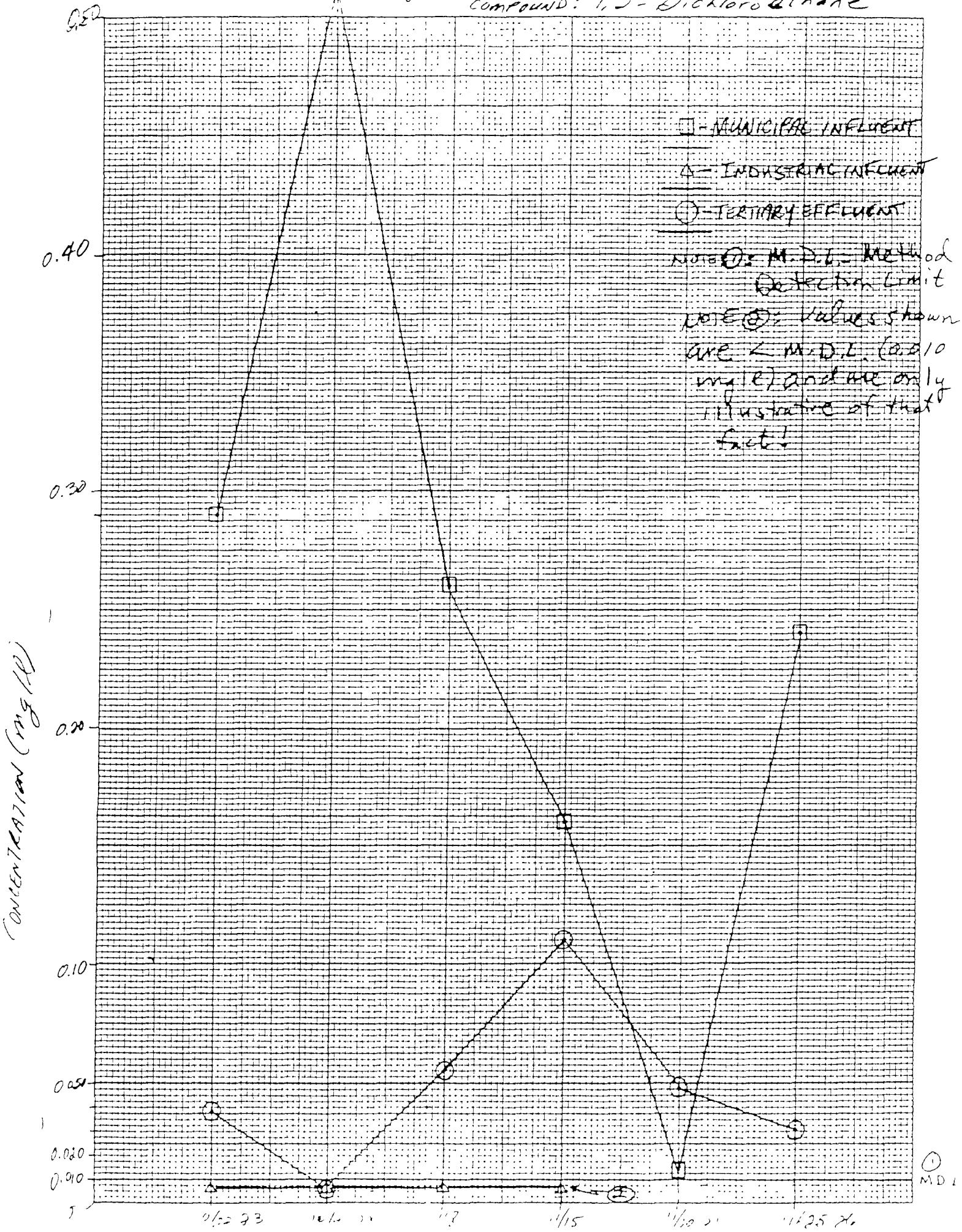
COMPOUND : METHYLENE CHLORIDE



COMPOUNDS: CHLOROFORM



compound: 1,2-Dichloroethane



15--

6/11

7/11

8/11

8/18

8/23

1G W
①

0.010

0.020

0.030

0.040

0.050

0.060

0.070

0.080

0.090

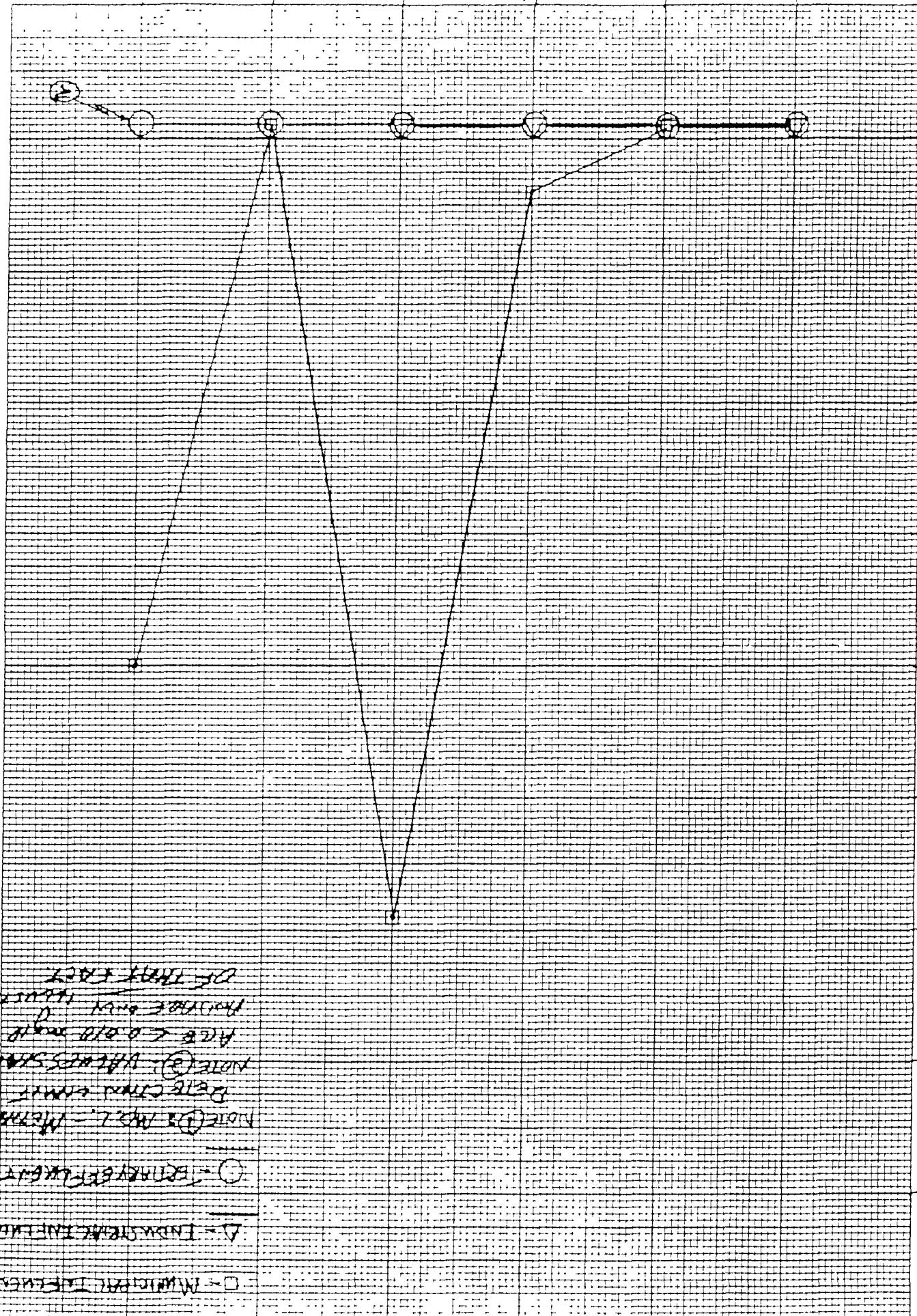
0.10

Concentration (g)

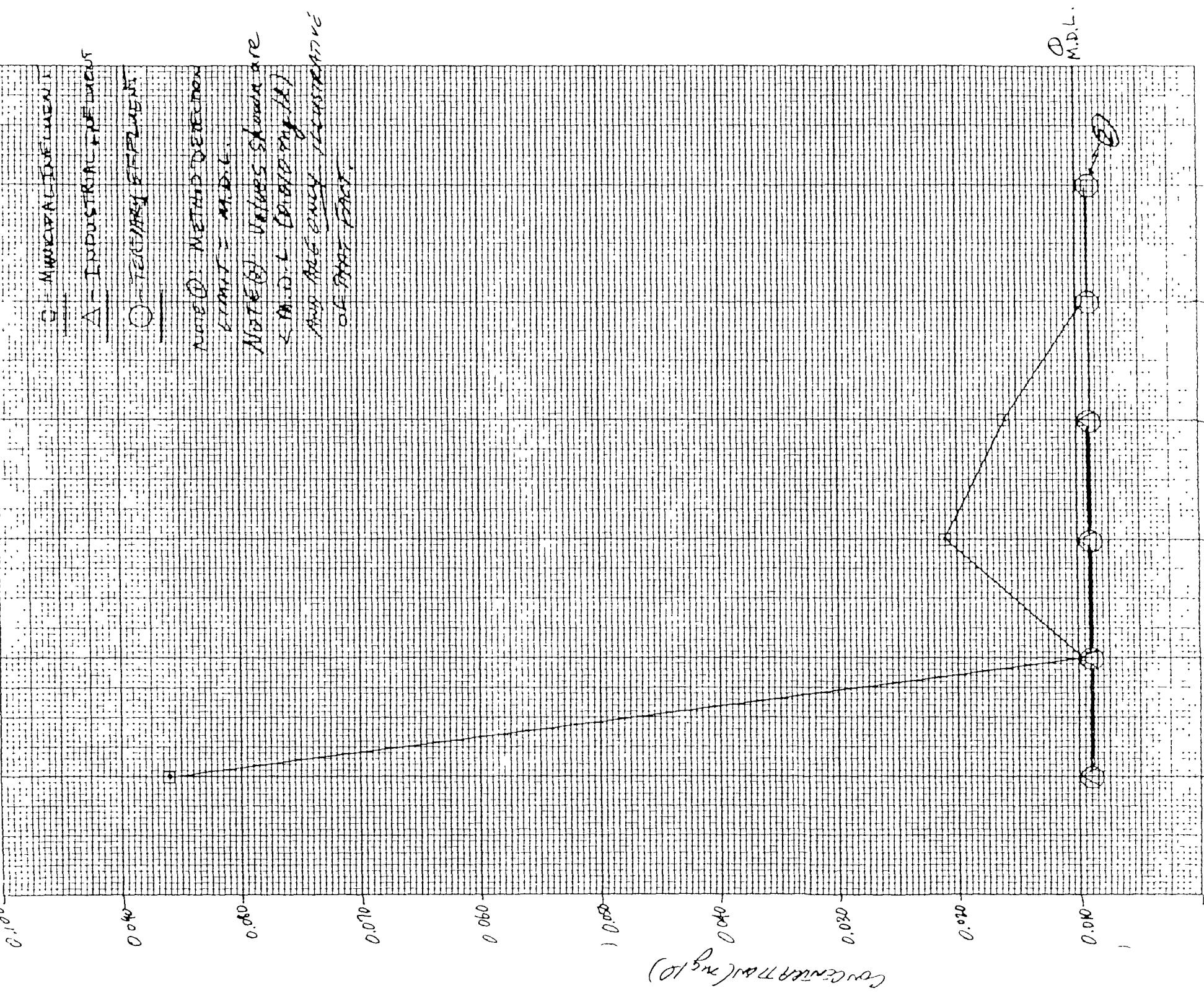
DCE THF 50/50

HOOC-C(=O)-CH₂-CH₂-COOH (A)HOOC-C(=O)-CH₂-CH₂-COOH (B)HOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOHHOOC-C(=O)-CH₂-CH₂-COOH

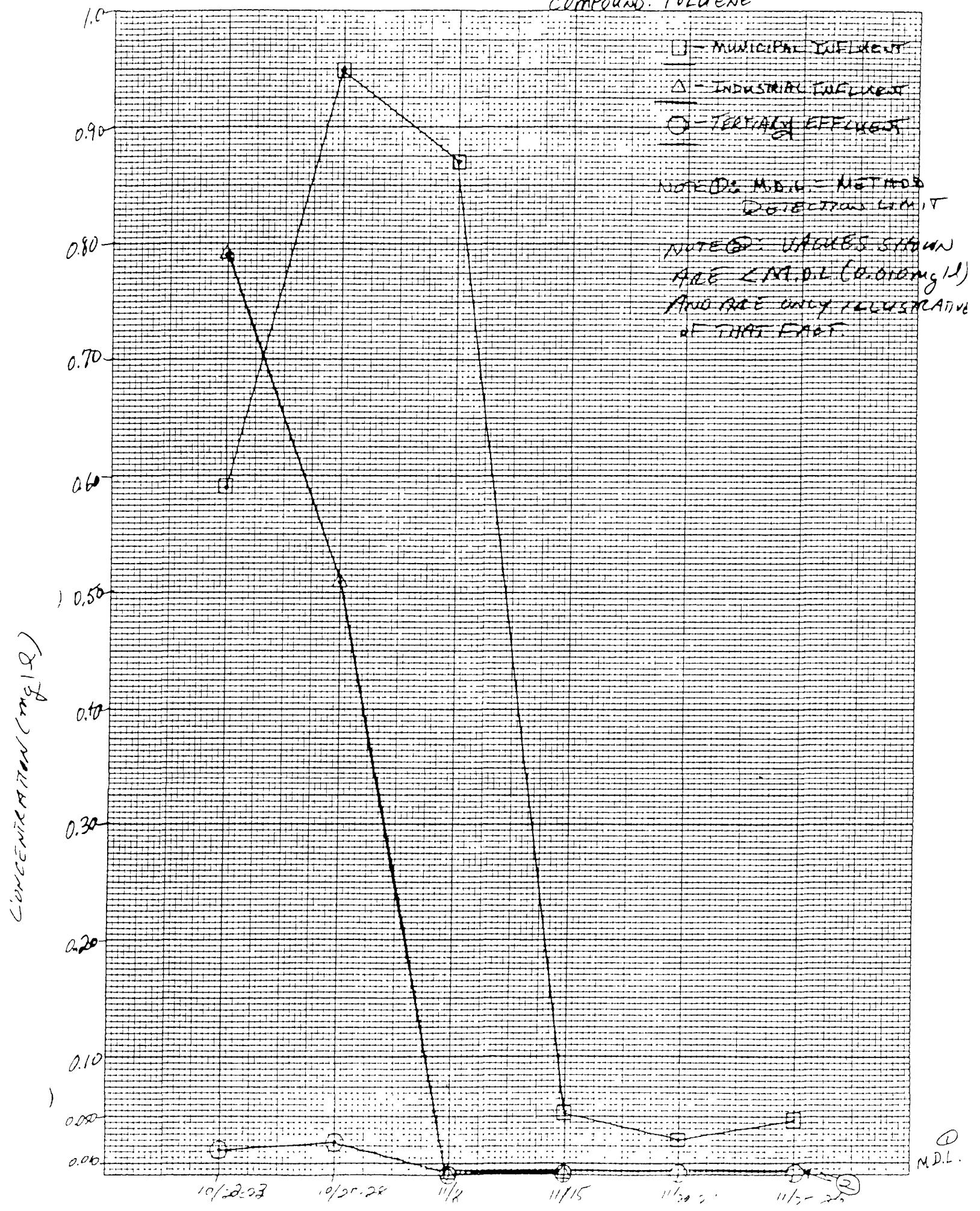
COMPOND: TRICHLOROETHYLENE



Compound: TETRACHLOROETHYLENE



COMPOUND: TOLUENE



Compound: Ethyl Benzene

- Molecular Weight
- Industrial solvent

Concentration Effect

Note: This report
describes the results of an
attempt to prepare 10
and 100% solutions of
ethyl benzene.

0.030

0.020

CONCENTRATION (mg/l)

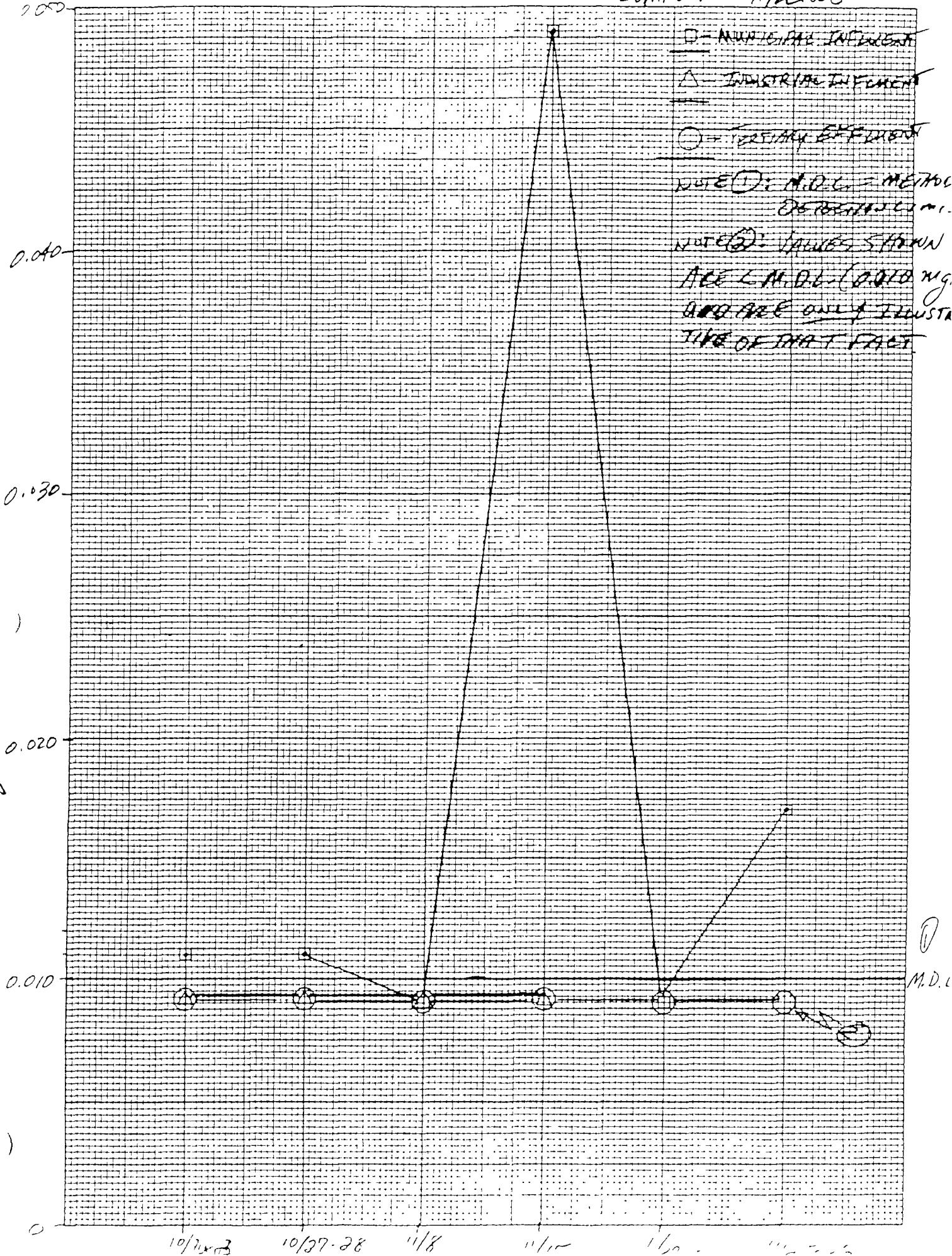
M.D.L

10/25/63 10/25/63 10/25/63

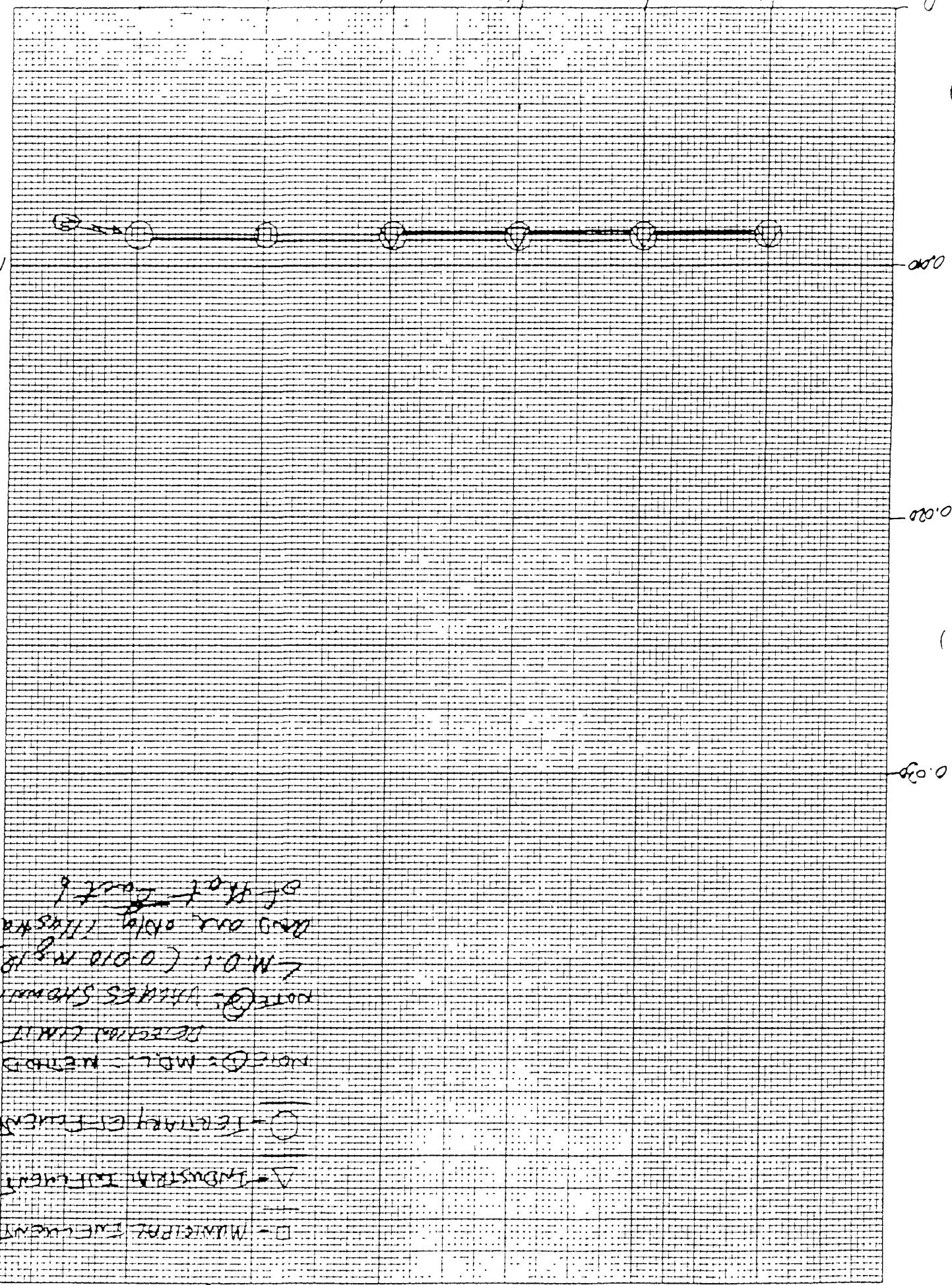
11/1 11/1 11/1

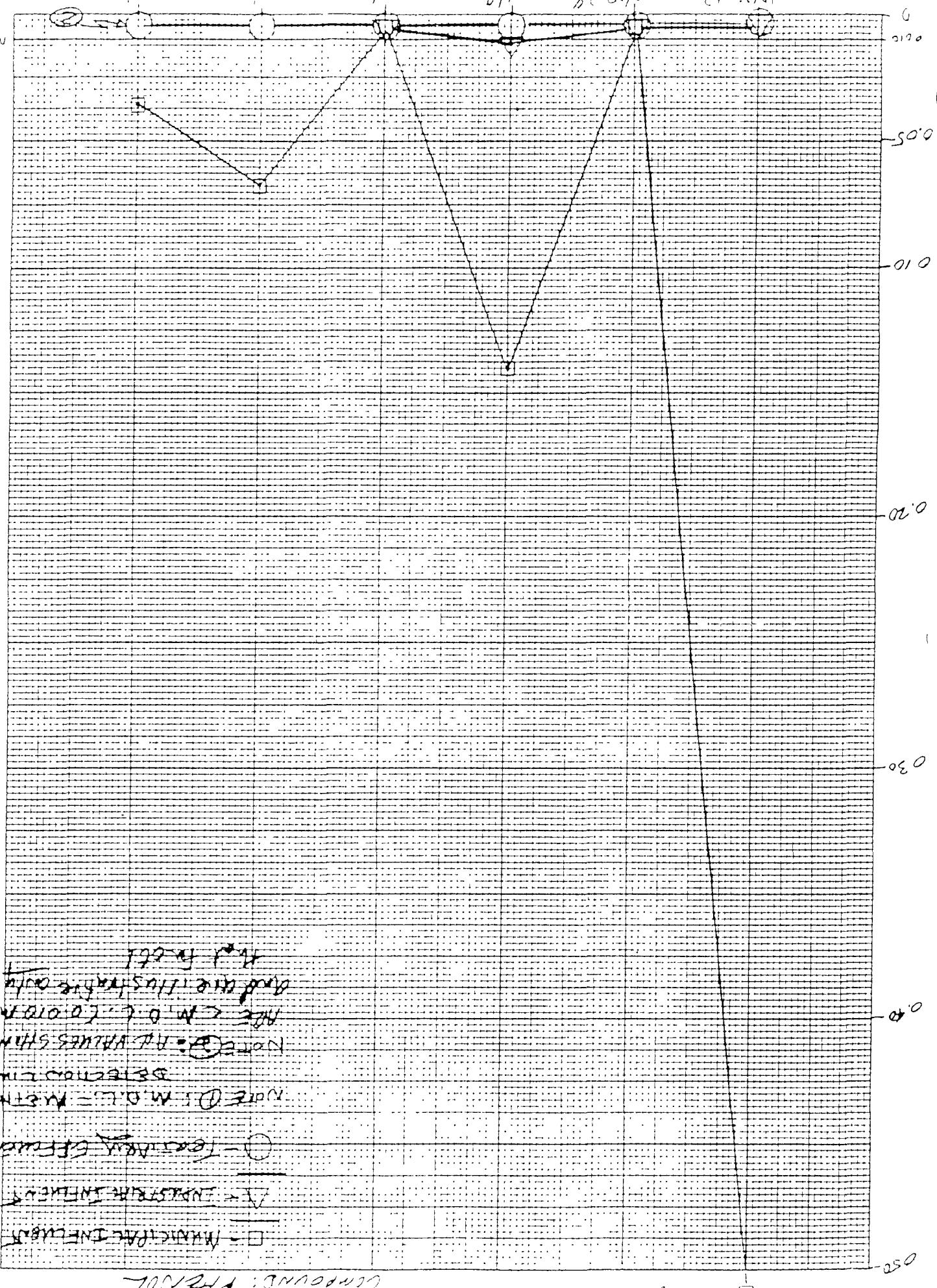
11/1 11/1 11/1

COMPOUND: XYLEMES



9.85% 11.85% -111 311 8e-0e/01 8e-6e/01

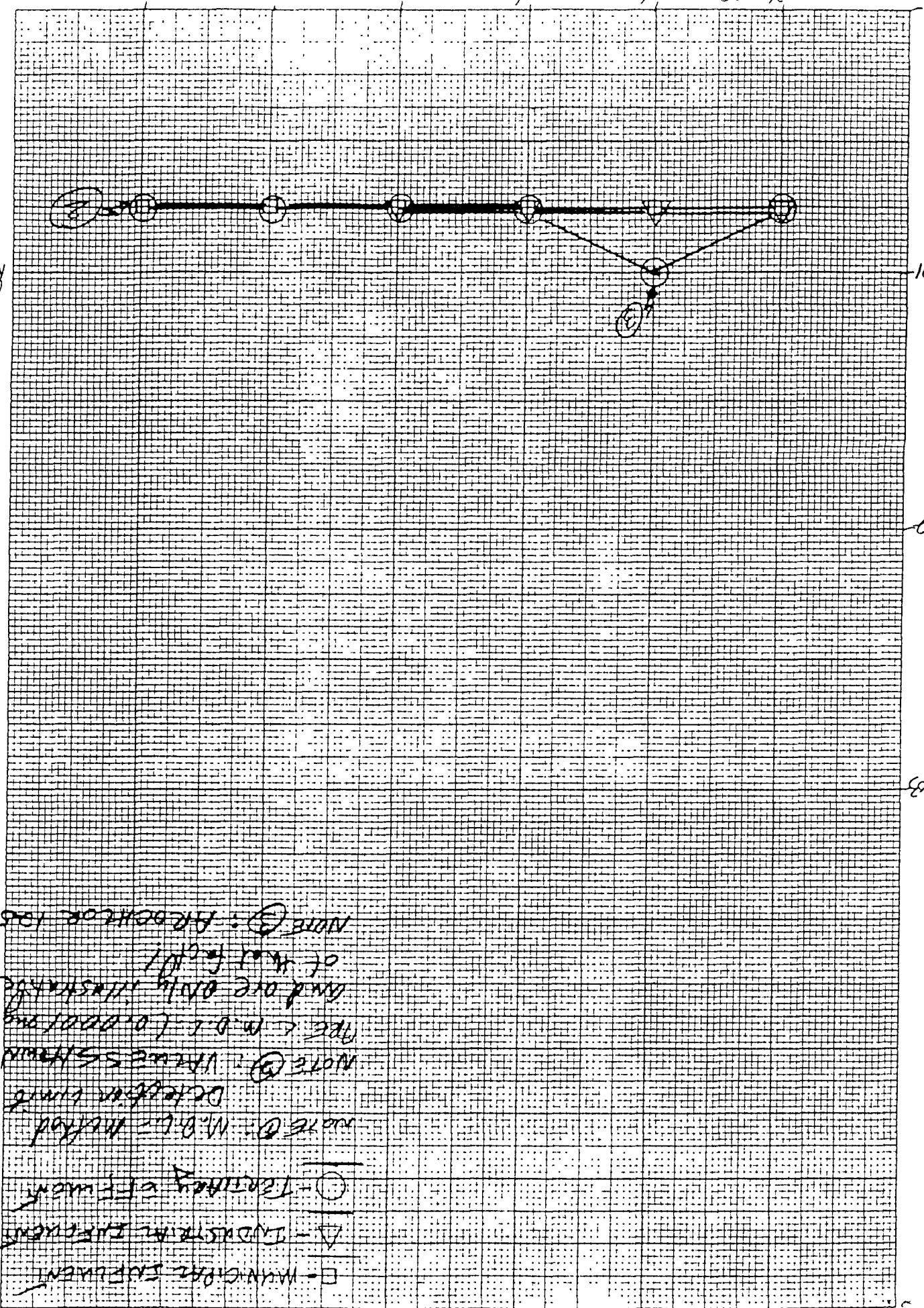




$M_{\text{eff}} = M_{\text{eff}} + \Delta M_{\text{eff}}$

Curvature

Compound: 33 - Dichlorbenzidine



Note ② : At equilibrium $\Delta G^\circ = 0$

(1) Note ③ : $\Delta G^\circ = -RT \ln K_p$

Note ④ : $\Delta G^\circ = \text{standard free energy}$

Note ⑤ : $\Delta G^\circ = \text{enthalpy} - \text{entropy}$

Note ⑥ : $\Delta G^\circ = \text{standard free energy}$

Note ⑦ : $\Delta G^\circ = \text{standard free energy}$

Note ⑧ : $\Delta G^\circ = \text{standard free energy}$

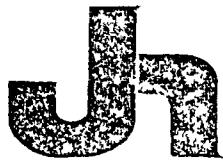
Note ⑨ : $\Delta G^\circ = \text{standard free energy}$

Note ⑩ : $\Delta G^\circ = \text{standard free energy}$

Compound: PCB's

concentration

1



JONES & HENRY LABORATORIES, INC. / 2000 WEST CENTRAL / TOLEDO, OHIO 43606 / (419) 473-9611

November 23, 1981

Mr. Pete Daukss
Jones & Henry Engineers, Limited
2000 W. Central Avenue
Toledo, OH 43606

SUBJECT: Sludge Management Study
Kalamazoo, Michigan

Dear Mr. Daukss:

Attached are results of analysis of samples received for examination from Kalamazoo, Michigan, during August and September, 1981.

Please advise should you have questions concerning these data.

Respectfully submitted,

JONES & HENRY LABORATORIES, INC.

Fred W. Doering
Fred W. Doering,
Chemist

sh

attach.

KALAMAZOO, MICHIGAN
Sludge Management Study

Jones & Henry Laboratories, Inc.

SAMPLE IDENTIFICATION:	WASTEWATER SCREENINGS	GRIT	MUNICIPAL SCUM	INDUSTRIAL SCUM	FILTER CAKE	INCINERATOR ASH	FILTER CAKE	FILTER CAKE	FILTER CAKE
COLLECTED:	8/11/81	8/11/81	8/11/81	8/11/81	8/11/81	8/11/81	8/24/81	9/02/81	9/11/81
TEST PARAMETER									
DRY SOLIDS (%)	44.5	69.5	68.4	36.1	42.6	44.6	42.9	42.6	44.4
CYANIDE (mg/kg wet)	0.4	LT 0.5	3.5	1.6	0.47	0.4	0.38	1.7	1.3
PCB (ppm)	LT 1	LT 1	LT 1	LT 10	LT 1	LT 1	LT 1	LT 1	LT 1
EP CONCENTRATION (mg/l)									
ARSENIC	0.002	0.004	0.006	LT 0.02	0.01	0.004	0.005	0.006	0.004
BARIUM	0.2	0.57	0.52	0.4	0.4	0.57	0.2	0.5	0.3
CADMIUM	LT 0.5	LT 0.5	LT 0.5	LT 0.5	LT 0.5	LT 0.5	0.006	0.007	0.006
CHROMIUM	0.04	0.01	0.03	0.02	0.03	0.02	0.02	0.02	0.02
LEAD	LT 0.5	LT 0.5	LT 0.5	LT 0.5	LT 0.5	LT 0.5	0.015	0.031	0.028
MERCURY	LT 0.0002	LT 0.0002	LT 0.0002	0.0004	LT 0.0002	LT 0.0002	LT 0.0002	LT 0.0002	LT 0.0002
SELENIUM	LT 0.004	LT 0.004	LT 0.004	LT 0.004	LT 0.004	0.006	LT 0.004	0.004	LT 0.002
SILVER	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	0.005	0.005
ENDRIN	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02
LINDANE	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02

continued

KALAMAZOO, MICHIGAN

Sludge Management Study

Jones & Henry Laboratories, Inc.

TEST PARAMETER	WASTEWATER SCREENINGS	GRIT	MUNICIPAL SCUM	INDUSTRIAL SCUM	FILTER CAKE	INCINERATOR ASH	FILTER CAKE	FILTER CAKE	FILTER CAKE
EP CONCENTRATION (mg/l) cont'd									
METHOXYCHLOR	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2	LT 0.2
TOXAPHENE	LT 0.1	LT 0.5	LT 0.5	LT 0.5	LT 0.1	LT 0.5	LT 0.5	LT 0.5	LT 0.5
2,4-D	LT 0.01	LT 0.03	LT 0.03	LT 0.03	LT 0.01	LT 0.01	LT 0.03	LT 0.03	LT 0.03
2,4,5-TP	LT 0.01	LT 0.03	LT 0.03	LT 0.03	LT 0.01	LT 0.01	LT 0.03	LT 0.03	LT 0.03
COPPER	0.10	0.01	0.02	LT 0.005	0.04	0.04	0.04	0.07	0.05
ZINC	0.14	0.16	0.61	0.43	0.34	0.48	0.24	0.23	0.22

LT - Actual value less than stated level of detection

TABLE IV

CITY OF KALAMAZOO
WATER POLLUTION CONTROL BY-PRODUCTS SOLIDS AREA

EP TOXICITY ANALYSIS OF IN-PLACE SAMPLES

Parameter	Depth (Feet)			
	8.5 - 10	13.5 - 15	15 - 16	18.5 - 20
Cyanide (Mg/kg as received)	2.88	2.25	2.09	0.42
PCB (ppm) (Aroclor 1242)	0.24	0.42	0.85	0.087
Arsenic	0.004	0.006	0.009	0.004
Barium	0.7	0.5	0.9	0.7
Cadmium	0.005	0.006	0.008	0.005
Chromium	0.02	0.02	0.02	0.01
Lead	0.019	0.016	0.019	0.012
Mercury	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Selenium	< 0.002	< 0.002	< 0.002	< 0.002
Silver	0.01	0.01	< 0.005	< 0.005
Copper	0.24	0.12	0.10	0.02
Zinc	0.61	0.70	0.70	0.47
Endrin	< 0.002	< 0.002	< 0.002	< 0.002
Lindane	< 0.001	< 0.001	< 0.001	< 0.001
Methoxychlor	< 0.01	< 0.01	< 0.01	< 0.01
Toxaphene	< 0.2	< 0.2	< 0.2	< 0.2
2,4 - D	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5 - (TP) (Silvex)	< 0.1	< 0.1	< 0.1	< 0.1

All results in mg/l except where else noted.

Analysis Completed by Jones & Henry Laboratories, Inc.

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

Results of Analyses
for
Jones & Henry Labs

Job No. 14124-282-LA

Lab Number: Lab Blank

<u>PESTICIDES</u>	<u>(micrograms/liter)</u>
Aldrin	<10
a-BHC	<10
b-BHC	<10
d-BHC	<10
g-BHC	<10
Chlordane	<100
4,4'-DDD	<10
4'-DDE	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<10
	<1000
	<100
	<100
	<100
	<100
	<100
	<100
	<100
	<100

① Call Dail
Re:

② Sampling equipment
wells

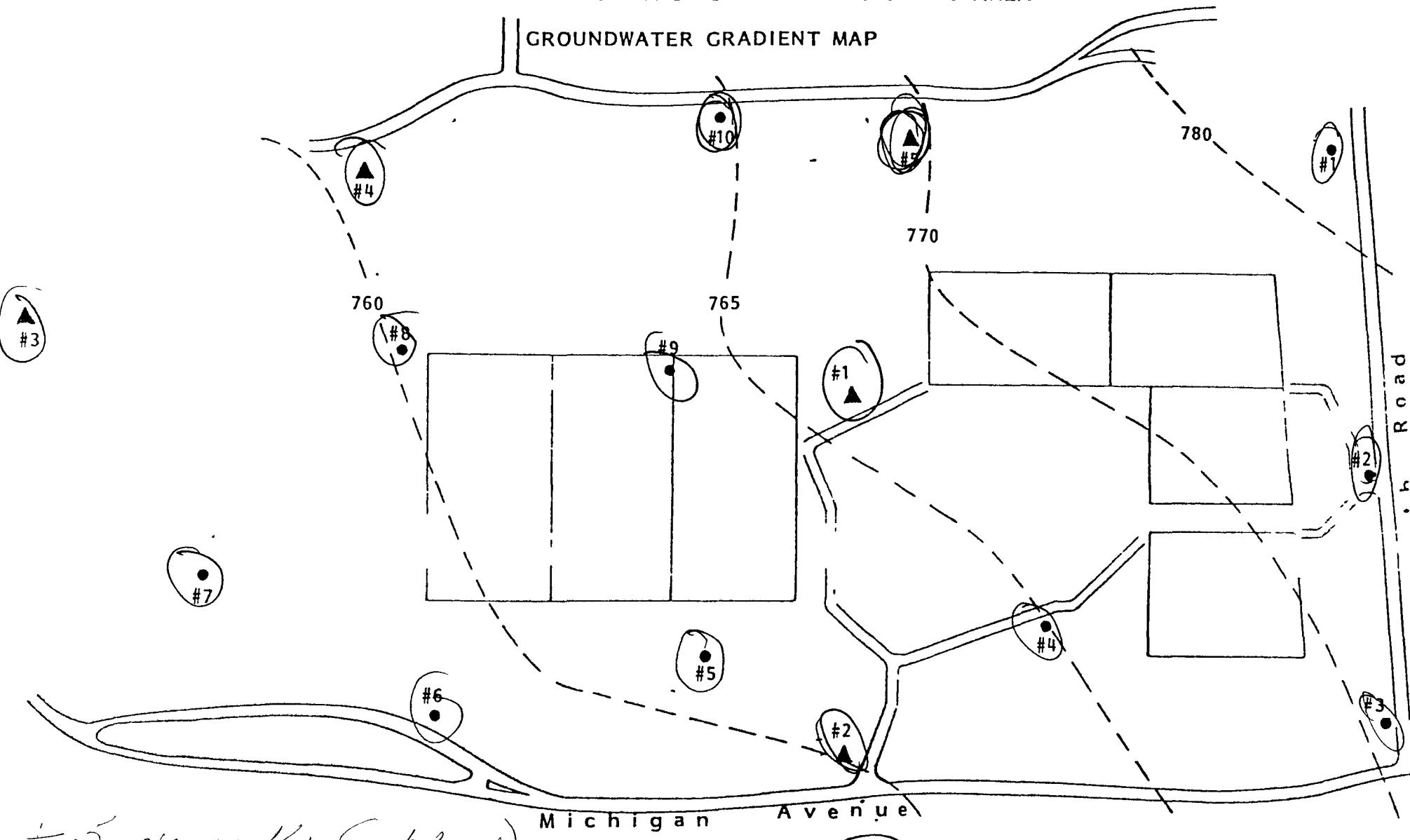
10. monitoring wells
5 - existing &

is equipment

to what type of
the COD, "ph"

WATER POLLUTION CONTROL BY PRODUCTS SOLIDS AREA

GROUNDWATER GRADIENT MAP



▲ Existing Well (4")

● Monitor Well (2")

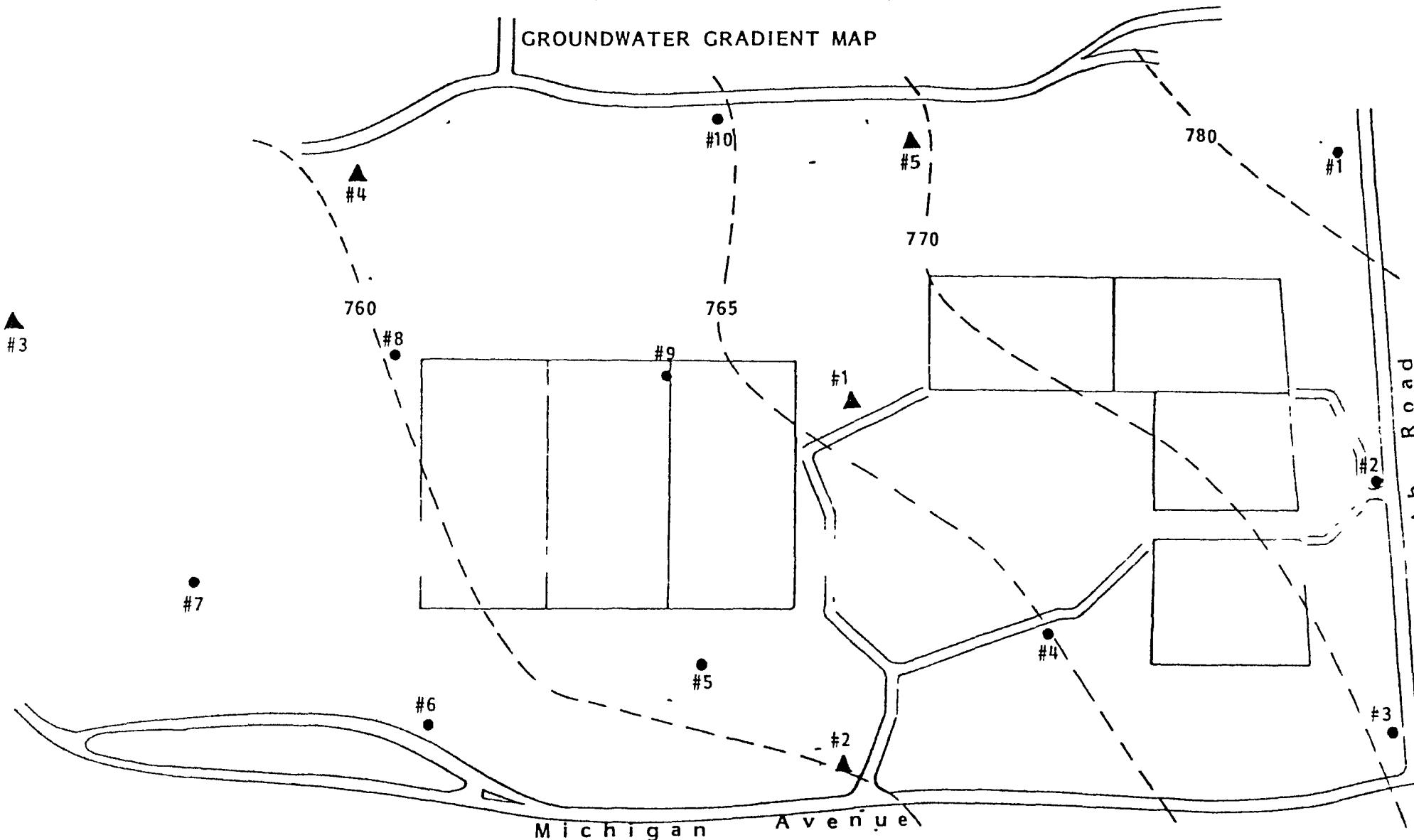


SCALE: 1" = 400'

PLATE 5

WATER POLLUTION CONTROL BY-PRODUCTS SOLIDS AREA

GROUNDWATER GRADIENT MAP



SCALE: 1" = 400'

PLATE 5

TABLE V
DEPARTMENT OF NATURAL RESOURCES
Water Quality Division

Analytical Results of Samples Collected on September
 10, 1981, from Test Wells Located Around the City of
 Kalamazoo Proposed Solids Disposal Site.

<u>Test Well (T.W.)</u>	<u>C.O.D. mg/l</u>	<u>T.O.C. mg/l</u>	<u>Phenol ug/l</u>	<u>Tot-CN mg/l</u>	<u>NO₃-NO₂ mg/l</u>	<u>NH₃ mg/l</u>	<u>Org.N mg/l</u>	<u>KJEL-N mg/l</u>	<u>Tot-P mg/l</u>
T.W. #1	8	2.7	6 NA	K 0.005	0.01	0.09	0.14	0.23	0.03
T.W. #2	10	2.5	3 NA	K 0.005	1.4	0.07	0.20	0.27	0.01
T.W. #3	4	1.3	5 NA	0.007	0.01	0.11	0.08	0.19	0.01
T.W. #4	K 3	0.6	2 NA	0.007	1.7	0.11	K 0.05	0.05	K 0.01
T.W. #5	5	1.8	2 NA	K 0.005	0.01	0.28	0.40	0.40	0.02
	<u>Chlorides mg/l</u>	<u>Tot-SO₄ mg/l</u>	<u>Tot-Alk mg/l</u>	<u>BICARB mg/l</u>	<u>CARB mg/l</u>	<u>Tot-Ca mg/l</u>	<u>Tot-Mg mg/l</u>	<u>Tot-Na mg/l</u>	<u>Tot-K mg/l</u>
T.W. #1	21	20	200	245	0	55	20	12	0.9
T.W. #2	22	61	575	700	0	140	55	11	1.7
T.W. #3	10.9	33	270	330	0	65	30	4	1.1
T.W. #4	4.3	42	305	370	0	85	30	3	0.8
T.W. #5	30	36	285	350	0	85	25	13	1.3
	<u>Tot-Cd ug/l</u>	<u>Tot-Cr ug/l</u>	<u>Tot-Cu ug/l</u>	<u>Tot-Ni ug/l</u>	<u>Tot-Pb ug/l</u>	<u>Tot-Zn ug/l</u>	<u>Tot-Fe ug/l</u>	<u>Tot-As ug/l</u>	<u>Tot-Hg ug/l</u>
T.W. #1	K 20	K 50	K 20	K 50	K 50	130	4700	3	K 1
T.W. #2	K 20	K 50	K 20	K 50	60	1500	11,000	K 1	K 1
T.W. #3	K 20	K 50	K 20	K 50	K 50	90	9800	1	K 1
T.W. #4	K 20	K 50	K 20	K 50	K 50	K 50	460	K 1	K 1
T.W. #5	K 20	K 50	K 20	K 50	K 50	K 50	5900	4	K 1
	<u>Tot-Se ug/l</u>	<u>Tot-Ag ug/l</u>	<u>Scan #1 ug/l</u>	<u>Scan #2 ug/l</u>	<u>Scan #3 ug/l</u>	<u>Scan #4 ug/l</u>	<u>PCB's ug/l</u>	<u>DBP ug/l</u>	<u>DEHP ug/l</u>
T.W. #1	K 1	K 20	U (K1)	U (K10)	U (K0.1)	U	K 0.2	2	5
T.W. #2	K 1	K 20	U (K1)	U (K10)	U (K0.1)	U	K 0.2	3	3
T.W. #3	K 1	K 20	U (K1)	U (K10)	U (K0.1)	U	K 0.2	10	3
T.W. #4	K 1	K 20	U (K1)	U (K10)	U (K0.1)	U	K 0.2	7	2
T.W. #5	K 1	K 20	U (K1)	U (K10)	U (K0.1)	U	K 0.2	5	9

continued

DEPT. PUBLIC WORKS
 CITY OF KALAMAZOO

JAN 11 1982

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

Results of Analyses
for
Jones & Henry Labs

Job No. 14124-282-LA

Lab Number: Lab Blank

<u>BASE NEUTRALS</u>	<u>(micrograms/liter)</u>
1B acenaphthene	<10
2B acenaphthylene	<10
3B anthracene	<10
4B benzidine	<10
5B benzo(a)anthracene	<10
6B benzo(a)pyrene	<10
7B 3,4-benzofluoranthene	<10
8B benzo(ghi)perylene	<10
9B benzo(k)fluoranthene	<10
10B bis(2-chloroethoxy)methane	<10
11B bis(2-chloroethyl)ether	<10
12B bis(2-chloroisopropyl)ether	<10
13B bis(2-ethylhexyl)phthalate	12
14B 4-bromophenyl phenyl ether	<10
15B butylbenzyl phthalate	<10
16B 2-chloronaphthalene	<10
17B 4-chlorophenyl phenyl ether	<10
18B chrysene	<10
19B dibenzo(a,h)anthracene	<25
20B 1,2-dichlorobenzene	<10
21B 1,3-dichlorobenzene	<10
22B 1,4-dichlorobenzene	<10
23B 3,3'-dichlorobenzidine	<10
24B diethyl phthalate	<10
25B dimethyl phthalate	<10
26B di-n-butyl phthalate	<10
27B 2,4-dinitrotoluene	<10
28B 2,6-dinitrotoluene	<10
29B di-n-octyl phthalate	<10
30B 1,2-diphenylhydrazine (as azobenzene)	<10
31B fluoranthene	<10
32B fluorene	<10
33B hexachlorobenzene	<10
34B hexachlorobutadiene	<10
35B hexachlorocyclopentadiene	<10
36B hexachloroethane	<10
37B indeno(1,2,3-cd)pyrene	<25

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

Results of Analyses
for
Jones & Henry Labs

Job No. 14124-282-LA

Lab Number: Lab Blank

<u>VOLATILES</u>	<u>(micrograms/liter)</u>
1V acrolein	<100
2V acrylonitrile	<100
3V benzene	<10
4V bis(chloromethyl)ether	<10
5V bromoform	<10
6V carbon tetrachloride	<10
7V chlorobenzene	<10
8V chlorodibromomethane	<10
9V chloroethane	<10
10V 2-chloroethylvinyl ether	<10
11V chloroform	<10
12V dichlorobromomethane	<10
13V dichlorodifluoromethane	<10
14V 1,1-dichloroethane	<10
15V 1,2-dichloroethane	<10
16V 1,1-dichloroethylene	<10
17V 1,2-dichloropropane	<10
18V 1,2-dichloropropylene	<10
19V ethylbenzene	<10
20V methyl bromide	<10
21V methyl bromide	<10
22V methyl chloride	<10
23V methylene chloride	<10
24V 1,1,2,2-tetrachloroethane	<10
25V tetrachloroethylene	<10
26V toluene	<10
27V 1,2-trans-dichloroethylene	<10
28V 1,1,1-trichloroethane	<10
29V 1,1,2-trichloroethane	<10
30V trichloroethylene	<10
31V trichlorofluoromethane	<10
32V vinyl chloride	<10

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

Results of Analyses
for
Jones & Henry Labs

Job No. 14124-282-LA

(continued)

Lab Number: Lab Blank

<u>BASE NEUTRALS</u>	<u>(micrograms/liter)</u>
38B isophorone	<10
39B naphthalene	<10
40B nitrobenzene	<10
41B N-nitrosodimethylamine	<25
42B N-nitrosodi-n-propylamine	<10
43B N-nitrosodiphenylamine	<10
44B phenanthrene	<10
45B pyrene	<10
46B 1,2,4-trichlorobenzene	<10
2,3,7,8-Tetrachlorodibenzo-p-dioxin	N.D.

N.D. = Not Detected.

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

Results of Analyses
for
Jones & Henry Labs

Job No. 14124-282-LA

Lab Number: Lab Blank

<u>ACID COMPOUNDS</u>	<u>(micrograms/liter)</u>
1A 2-chlorophenol	<25
2A 2,4-dichlorophenol	<25
3A 2,4-dimethylphenol	<250
4A 4,6-dinitro-o-cresol	<250
5A 2,4-dinitrophenol	<25
6A 2-nitrophenol	<25
7A 4-nitrophenol	<25
8A p-chloro-m-cresol	<25
9A pentachlorophenol	<25
10A phenol	<25
11A 2,4,6-trichlorophenol	<25

Scan 1 Purgeable Halocarbons

Bromoform	1,2-Dichloroethene
Bromodichloromethane	1,1,1-Trichloroethane
Chlorodibromomethane	1,1,2-Trichloroethane
Chloroform	Trichloroethene (TCE)
Carbon tetrachloride	1,1,2,2-Tetrachloroethane
Dichloromethane	Tetrachloroethene (PCE)
1,1-Dichloroethane	1-Bromo-3-chloropropane
1,2-Dichloroethane	1,2-Dichloropropane
1,1-Dichloroethene	Chlorobenzene

Scan 2 Purgeable Aromatic Hydrocarbons

Benzene	p-Xylene
Toluene	Ethylbenzene
o-Xylene	
m-Xylene	Styrene

Scan 3 Chlorinated Hydrocarbons

Hexachlorobutadiene (HCBD)	Octachloropentene (OCP).
Hexachlorocyclopentadiene (HCP)	Pentachloronitrobenzene (PCNB)
Hexachlorobenzene (HCB)	

Scan 4 Polychlorinated biphenyls and organochlorine pesticides

Aroclor 1016	Heptachlor
Aroclor 1221	Heptachlor epoxide
Aroclor 1232	Endrin
" 1242	Toxaphene
" 1248	Chlordane
" 1254	Lindane
" 1260	Mirex
" 1262	Endosulfan
DDT	Methoxychlor
DDD	Aldrin
DDT	Dieldrin

Scan 5 Brominated Hydrocarbons

PBB	Tris
-----	------

Scan 6 Phthalate Esters

Bis(2-ethylhexyl)phthalate	Diethyl phthalate
Butyl benzyl phthalate	Di-n-octyl phthalate
Di-n-butyl phthalate	

DEPT. PUBLIC WORKS
CITY OF KALAMAZOO

JAN 11 1992

continued

TABLE V

Scan 7 Polynuclear Aromatic Hydrocarbons

Acenaphthene	Dibenzo(a,h)anthracene
Acenaphthylene	Fluoranthene
Anthracene	Fluorene
Benzo(a)anthracene	Indeno(1,2,3-cd)pyrene
Benzo(a)pyrene	Naphthalene
Benzo(ghi)perylene	Phenanthrene
Chrysene	Pyrene

Scan 8 Phenols

2,4-Dichlorophenol
2,3,5-Trichlorophenol
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
Pentachlorophenol

DEPT. PUBLIC WORKS
CITY OF KALAMAZOO

JAN 11 1982



PROJECT KALAMAZOO

DATE January 8, 1988

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

page 2 of 2



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

January 8, 1988

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, MI 49007

Dear Bruce,

Enclosed please find the PCB results on the samples from December. Also enclosed are the chain of custody forms.

If you have any questions on the data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosures



PROJECT KALAMAZOO

DATE January 8, 1988

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

page 1 of 2

PROJECT City of Kalamazoo

DATE Feb. 5, 1987



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364
DATA SUMMARY SHEET

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date

THE CITY OF



DEPARTMENT OF PUBLIC UTILITIES

Water Reclamation

1415 N Harrison

Kalamazoo, Michigan 49007-2565

(616) 385-8157

October 28, 1987

Ms. Linda Koivuniemi,
Environmental Quality Analyst
Surface Water Quality Division
Michigan Department of Natural Resources
Plainwell District Headquarters
P.O. Box 355 621 N. Tenth Street
Plainwell, Michigan 49080

Dear Ms. Koivuniemi:

Attached is a revised long term compliance plan submitted in accordance with our NPDES permit and our meeting of October 13, 1987. You will note that this revised plan includes source control and reduction contingency measures as was agreed in our meeting.

Thank you for your continued cooperation in this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Daniel Starkey". Below the signature, the name is typed.

Daniel J. Starkey, P.E.,
General Superintendent

b

attach

c B. Minsley
R. Amundson
File

KALAMAZOO LONG-TERM COMPLIANCE PLAN FOR LTWQBEL ON PCB

REVISED 10/28/87

INTRODUCTION

The Kalamazoo NPDES Permit #MI0022399, Part I, Section A 3., a. requires the development of a long term compliance plan for achieving the long-term water quality based effluent limit (LTWQBEL) FOR PCB. The Water Quality Group, Industrial Services Section, has been assigned the responsibility for this area of work within the Department of Public Utilities. Contact persons for the status of the work are Bruce Merchant, Industrial Services Supervisor, Rohel Amundson, Water Quality General Supervisor, and Daniel Starkey, General Superintendent.

INDUSTRIAL USERS SURVEY

As a part of the development of the Industrial Pretreatment Program (IPP), a survey was sent to all industrial users in the service area. The survey contained a list of chemicals which combined the MDNR Critical Materials Register and the EPA Priority Pollutant list. Survey respondents were required to report what chemicals from the list were used or stored at their facilities. Seven industries reported that PCBs were stored at their facilities. One industry reported that it discharged PCBs to the sanitary sewer.

WATER RECLAMATION PLANT INFLUENT AND EFFLUENT ANALYSIS FOR PCB's

Kalamazoo Water Reclamation Plant (KWRP) influent was analyzed for priority pollutants on two occasions in February of 1985. PCB's were not detected either time. Beginning in October of 1985, influent and effluent were analyzed once a week, for six consecutive weeks, for several metals and organic compounds, including PCBs. On one occasion during the six week monitoring program, PCB was noted to be present in the effluent at a level of detection; 0.1 ug/l.

RESIDUALS ANALYSIS

Samples of incinerator ash and carbon regeneration ash were collected on April 29, 1986 and May 6, 1986 and analyzed for several parameters, including PCBs. PCBs were not detected in any of the samples. All KWRP residual solids were tested for PCBs on September 9, 1987 and again, no PCBs were found.

FOLLOW-UP ON POTENTIAL DISCHARGERS

During 1987 follow-up was conducted on the industrial users which indicated in their survey responses that they either store or discharge PCBs. For those industries which have a potential to discharge PCBs, samples were collected quarterly, and analyzed for PCBs. It is proposed that semi-annual testing for PCBs be performed on potential PCB dischargers.

KALAMAZOO LONG-TERM COMPLIANCE PLAN FOR LTWQBEL ON PCB
REVISED 10/28/87

- 2 -

COMPLIANCE PROGRAM OUTLINE

Phase 1: PCB Source Identification

This phase has been completed with the Industrial User Survey. This is described in greater detail on the first page of this report. Semi-annual sampling will continue for those industries which have indicated that they have the potential to discharge PCBs to our system.

Phase 2: Bioaccumulation Study

A bioaccumulation study will be conducted on KWRP effluent using approved test protocols. The proposed schedule for this study follows:

December 31, 1987 - Bioaccumulation study plan submitted to MDNR for review and approval.

May 1988/April 1989 - Bioaccumulation study.

Phase 3: Source Control Measures

Phase three (3) will be implemented only if the bioaccumulation test specimens indicate that PCBs are present at detectable levels. This will involve a follow-up analysis of all PCB sources including:

1. Detailed site inspections of all potential PCB dischargers to identify possible source control or reduction measures.
2. Possible pretreatment restrictions for the specific purpose of PCB reduction may be imposed on industries if the follow-up inspections reveal PCB discharges.
3. A program for the purpose of identifying other, unknown sources of PCB discharges would be initiated.

Prepared by: Daniel J. Starkey

Date: October 28, 1987



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

June 2, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results of the samples taken in May. There was some trace of PCB in the Field blank, but it was still below our detection limit.

We sent out three boxes of bottles today by UPS. If you have any questions on this data please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosure



PROJECT City of Kalamazoo

DATE June 2, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

May 7, 1987

Mr. Bruce Merchant
City of Kalamazoo
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the last two sets of water samples which you sent into our laboratory for analysis.

If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Laboratory Director

Enclosure



PROJECT City of Kalamazoo

DATE May 7, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

April 3, 1987

Mr. Bruce Merchant
City of Kalamazoo
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the results on the PCB analysis for the six water samples from March 23. As you can see from the data we had trace level contamination of Aroclor 1250 in our Field and Method blanks. This level was very consistant in every sample we ran and was near our detection level.

If you have any questions, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

GJW/ccw

Enclosures



PROJECT City of Kalamazoo

DATE April 3, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Feb. 5, 1987

Mr. Bruce Merchant
City of Kalamazoo
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the results on the three(3) water samples which were sent in for PCB analysis. As you can see, we did not find any PCB's in these samples. They did contain some interfering materials, however all interferences were removed upon sample extract clean-up.

If you have any questions, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

A handwritten signature in black ink, appearing to read "Gary J. Wagner".

Gary J. Wagner
President

GJW/ccw

Enclosure



PROJECT City of Kalamazoo

DATE Feb. 5, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364
DATA SUMMARY SHEET

Highland, Michigan 48031

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

March 11, 1987

Mr. Bruce Merchant
City of Kalamazoo
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the water samples taken on February 24 and 26.

We received two more boxes of samples today. Those results will be complete this coming Monday.

If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

A handwritten signature in black ink that reads "Gary J. Wagner".

Gary J. Wagner
President

GJW/ccw

Enclosure

PROJECT City of Kalamazoo

DATE March 11, 1987



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

June 25, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the samples from June 10. Also included with those results are a laboratory method blank and a sample spike.

We received the samples from June 24 today, all arrived in good shape. However, the Georgia Pacific sample name was not on the chain of custody form.

We will send out two more sets of bottles early next week for the next set of sampling. If you have any questions on this data please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner

Gary J. Wagner
Laboratory Director

Enclosure

GJW/ccw



PROJECT City of Kalamazoo

DATE June 25, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

July 3, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results from the six(6) samples from June 24. Two of the samples had traces of 125⁴, however they were near our detection limit.

We shipped out two more sets of bottles yesterday by UPS. If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

A handwritten signature in black ink, appearing to read "Gary J. Wagner".

Gary J. Wagner
Laboratory Director

Enclosure

GJW/ccw



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Sept. 22, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on four water samples from September 9, along with the chain of custody forms for those samples. As you will notice from the results, we did find a trace of PCB in two of the samples.

If you have any questions, or if there is anything else which I can do for you, please feel free to contact me.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Labsratory Director

Enclosures



PROJECT City of Kalamazoo

DATE Sept. 22, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Oct. 23, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results from the samples taken during the last part of September.

I am sorry it has taken so long to send these results to you. If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosures



PROJECT City of Kalamazoo

DATE Oct. 23, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364
DATA SUMMARY SHEET

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

July 20, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results from the two(2) samples taken on July 8. Also enclosed are the chain of custody forms for these samples along with some other forms which were not sent to you previously.

If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosures

GJW/ccw



PROJECT City of Kalamazoo

DATE July 3, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

March 18, 1987

Mr. Bruce Merchant
City of Kalamazoo
Dept. of Public Utilities
1417 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the eight(8) water samples which we received on March 11. Also enclosed is the chain of custody form.

As you can see from the data we could not achieve the low detection limit on James River sample. We went thru five(5) different clean-up techniques and could not remove the interferences. The remaining extract had a colorless oil present.

If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

A handwritten signature in black ink, appearing to read "Gary J. Wagner".
Gary J. Wagner
President

GJW/ccw

Enclosures



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

PROJECT City of Kalamazoo

DATE July 20, 1987

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

July 30, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the two(2) water samples from July 22. As before, we did not find any PCB's.

Also enclosed is the chain of custody form for these samples. We are sending two more boxes of bottles by UPS tommorow. If you have any questions on this data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

A handwritten signature in black ink that reads "Gary J. Wagner".

Gary J. Wagner
Laboratory Director

Enclosures

gjw/ccw



PROJECT City of Kalamazoo

DATE July 30, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Aug. 26, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on two sets of samples from August which were recently sent into our laboratory.

Also enclosed is the chain of custody forms for these samples. We sent out two more boxes of bottles today by UPS. If you have any questions on the data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner

Gary J. Wagner
Laboratory Director

Enclosures

ccw



PROJECT City of Kalamazoo

DATE Aug. 26, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Dec. 11, 1987

Mr. Bruce Mercahnt
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the two sets of plant outfall samples from November, along with the chain of custody forms for those samples.

If you have any questions on the data, or if there is anything else which I can do for you, please feel free to call.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosures



PROJECT City of Kalamazoo

DATE Dec. 11, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date



Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

Nov. 11, 1987

Mr. Bruce Merchant
Dept. of Public Utilities
1415 N. Harrison
Kalamazoo, Mi. 49007

Dear Bruce,

Enclosed please find the PCB results on the two sets of plant outfall samples from October along with the PCB results from the other sampling locations. As you can see from the data we did not find any PCB's in these samples.

Also enclosed are the three chain of custody forms for these samples. If you have any questions, or if there is anything else which I can do for you, please feel free to call. We will be sending out two more boxes of bottles(2 bottles/box) tommorow.

Sincerely,

Brighton Analytical, Inc.

Gary J. Wagner
Gary J. Wagner
Laboratory Director

Enclosures



PROJECT City of Kalamazoo

DATE Nov. 11, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name / Date



PROJECT City of Kalamazoo

DATE Nov. 11, 1987

Brighton Analytical Inc.

1576 Alloy Parkway

Phone (313) 887-6364

Highland, Michigan 48031

DATA SUMMARY SHEET

Sample Name/Date

KAR Laboratories Inc

4425 Manchester Road
Kalamazoo MI 49002

TELEPHONE (616) 381 9666

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Bruce Merchant

FOR PROFESSIONAL SERVICES

October 7, 1987

Analysis of five residue samples
submitted 9-9-87.

5 samples for complete EP Toxicity
plus PCB @ \$480.00

TOTAL.....\$2,400.00

Laboratory Code: 871405

P.O. No.: 41071

"PLEASE INDICATE
Lab Code On
Check Stub Or
Voucher"

I D #38-2476290

A FINANCE CHARGE OF 1½% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

Kalamazoo Water Reclamation
Plant
1415 N. Harrison
Kalamazoo, MI 49007

Date: October 7, 1987
Laboratory Code: 871405

Attn: Mr. Bruce Merchant

P.O. No.: 41071

Enclosed are the results of five residue samples
submitted 9-9-87.

Respectfully submitted,
KAR Laboratories, Inc.

William H. Bouma
William H. Bouma, Ph.D.
Director

WHB/mcr

EP TOXICITY EVALUATION
of
RESIDUE SAMPLES
for
KALAMAZOO WATER RECLAMATION PLANT

KAR Project No.: 871405
October 7, 1987

Performed by:
KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

INTRODUCTION

This project involved examination of five residue samples from the Kalamazoo Water Reclamation Plant for the characteristic of EP Toxicity as defined by the United States Environmental Protection Agency in the Federal Register (40 CFR Part 261.4) and as applied in Michigan by the Department of Natural Resources.

The samples were received in individual one liter glass containers on 9-9-87. They were provided by Mr. Bruce Merchant of the Kalamazoo Water Reclamation Plant who requested that the evaluation include all standard parameters plus PCB analysis of the extracts.

PROCEDURE

The Extraction Procedure (EP) followed "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", SW-846, 2nd Edition, United States EPA.

The solid portion of the sample and 16 times the original sample weight of distilled water were placed into a two liter container. During the extraction period, the pH was adjusted to 5.0 ± 0.2 by the addition of 0.5N Acetic Acid. At the end of the 24 hour extraction period the solid portion was separated from the liquid by filtration through a 0.45 micron filter to yield the final extract for analysis.

"Methods for Chemical Analysis of Water and Wastes", by USEPA and "Standard Methods for the Examination of Water and Wastewater" were used for the analytical procedures. The resulting data is shown in the following tables.

SAMPLE DESCRIPTIONS

KAR # 871405-1 was identified as "Grit"

The sample consisted of small damp particles similar to soil. Most of the material was brown to black, but specks of lighter color were observed.

KAR # 871405-2 was identified as "Incinerator Ash"

The sample consisted of a very fine, homogenous powdery material. It was very dry and tan in color.

KAR # 871405-3 was identified as "IPO Ash"

The sample consisted of a very fine black solid with free water. The solid was packed tightly but upon mixing, flowed with water.

KAR # 871405-4 was identified as "Filter Cake"

The sample consisted of clumps of gray fibrous material which was easily broken apart.

KAR # 871405-5 was identified as "Municipal & Industrial Screenings"

The sample consisted of a wide variety of materials including fibrous, greasy, stringy and clumps of tan, gray, white, brown and black material.

SOLID'S ANALYSIS RESULTS

All results reported as % of sample

<u>KAR Lab. Code</u>	<u>Sample I.D.</u>	<u>Total Solids</u>	<u>Volatile Solids</u>	<u>Non-combustible Solids</u>
871405-				
-1	Grit	84.62	9.39	75.23
-2	Incinerator Ash	99.54	0.21	99.33
-3	IPO Ash	64.79	4.44	60.35
-4	Filter Cake	50.39	32.53	17.86
-5	Municipal & Industrial Screenings	33.52	30.03	3.49

TABLE 1

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*
of
GRIT (KAR # 871405-1)
for
KALAMAZOO WATER RECLAMATION PLANT
(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	<0.01	5.0 mg/L
Barium	0.9	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.02	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.48	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 2

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

GRIT (KAR # 871405-1)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 3

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*
of
INCINERATOR ASH (KAR # 871405-2)
for
KALAMAZOO WATER RECLAMATION PLANT
(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	0.02	5.0 mg/L
Barium	<0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.05	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.41	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 4

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

INCINERATOR ASH (KAR # 871405-2)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 5

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*

of

IPO ASH (KAR # 871405-3)

for

KALAMAZOO WATER RECLAMATION PLANT

(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	0.04	5.0 mg/L
Barium	0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.02	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	0.04	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.22	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 6

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

IPO ASH (KAR # 871405-3)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 7

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*

of

FILTER CAKE (KAR # 871405-4)

for

KALAMAZOO WATER RECLAMATION PLANT

(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	0.02	5.0 mg/L
Barium	<0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.02	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.16	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 8

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

FILTER CAKE (KAR # 871405-4)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 9

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*

of

MUNICIPAL & INDUSTRIAL SCREENINGS (KAR # 871405-5)

for

KALAMAZOO WATER RECLAMATION PLANT

(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	<0.01	5.0 mg/L
Barium	0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.04	100.0 mg/L
Lead	0.02	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	0.02	5.0 mg/L
Zinc	1.42	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 10

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

MUNICIPAL & INDUSTRIAL SCREENINGS (KAR # 871405-5)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

THE CITY OF



DEPARTMENT OF PUBLIC UTILITIES

Water Reclamation
1415 N. Harrison

Kalamazoo, Michigan 49007-2565
(616) 385-8157

October 16, 1987

Mr. Anthony Andreassi
U.S. Environmental Protection Agency
3202 Monroe Street
Suite 200
Rockville, Maryland 20852

Dear Mr. Andreassi:

Per your request, enclosed are the results from the EP Toxicity Evaluation of five (5) residue samples from the City of Kalamazoo Water Reclamation Plant. A brief word of explanation about this facility is in order so that a proper understanding of the data can be obtained.

The Kalamazoo Water Reclamation Plant just went through a major expansion to be upgraded to tertiary treatment. The major component of this expansion was the addition of a Zimpro PACT system that consists of the addition of powdered activated carbon to the conventional activated sludge. The carbon is regenerated via Intermediate Pressure Oxidation (IPO) and then reintroduced into the system. A small amount of ash is also produced in this regeneration process. The sample labeled "IPO Ash" in the report was obtained from this ash.

Another unusual aspect of this facility is that the influent to the plant is on two separate interceptors. The Industrial Influent is from two major paper companies who perform primary treatment prior to discharge. This flow is treated separately through primary treatment and then joins the municipal flow at the point where the carbon is added. The Municipal Influent consists of all the domestic flows plus the effluent from several major industrial facilities. Altogether, the industrial contribution to the Kalamazoo Water Reclamation Plant is approximately 40% of the total flow of 25 MGD. The sampled labeled "Municipal and Industrial Screenings" is a composite of the various materials screened out in these separate primary treatment processes at this facility. The sample labeled "Grit" is strictly from the municipal primary treatment system since there is no grit collection for the industrial influent.

Mr. Anthony Andreassi
October 16, 1987
Page 2 of 2

Finally, the sludge from both the municipal and industrial primary treatment facilities is thickened and then sent to a Zimpro Low Pressure Oxidation heat conditioning facility. The sludge from this process is further thickened and then vacuum filtered. This filter cake is then incinerated.

Hopefully this has sufficiently explained where the samples were collected for these analyses. Please call if there are any additional questions regarding this data.

Sincerely,



Bruce E. Merchant,
Industrial Services Supervisor

Y

c R. Amundson
File



CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
WATER - WASTEWATER DIVISIONS

PURCHASE REQUISITION/CHANGE ORDER REQUEST

PLEASE ORDER FROM.

NAME *Sally J. DeWitt, RN, CCRN*

ADDRESS. 2425 1/2 16th Street NW
Washington D. C. 20510
Telephone 202-467-1111

PARTS FOR

DATE: 4-17-87

TOTAL

2400⁰⁰

CODE L-1791-Sub-P100-1644907

PLEASE RETURN BY: *1-15-55*

COST

DELIVERY



CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
WATER - WASTEWATER DIVISIONS

PURCHASE REQUISITION/CHANGE ORDER REQUEST

SIONS
P.O.

41071

Reg 750 9/21/87

PLEASE ORDER FROM:
NAME: *K*

FROM: KAR LABORATORIES, INC.

AJD

4425 MANCHESTER ROAD

KALAMAZOO, MICHIGAN 49002.

ATTN: WILLIAM BOUMA, PH.D.

PARTS FOR:

DATE : 9-19-89 TOTAL \$2400

CODE: 5900-564-8200-K5649907

— 6 —

~~2400~~

COST.

PLEASE RETURN BY:

DELIVERY: We will deliver to
957 KAR LABS.

9-18-87

APPENDIX A

(Get bottles
now & Tuesday &
Wednesday (or
Marty also!)

EP EXTRACT ANALYSIS
Average Concentration - mg/l

	<u>Screen- ings</u>	<u>Grit</u>	<u>Inciner- ator Ash</u>	<u>Filter Cake</u>	<u>Sludge Conditioning Cleanings</u>	<u>Drinking Water Standards</u>
Calcium	152	315	491	167	—	
Magnesium	20.2	10.4	55.9	14.2	—	
Sodium	16	9.8	5.0	7.6	—	
Chloride	20.5	9.1	15.7	13.3	3.2	
Ammonia Nitrogen	0.40	23.0	0.69	32.8	0.09	
Nitrate Nitrogen	0.01	0.14	0.28	0.01	0.01	10.0
Nitrite Nitrogen	0.01	0.01	0.01	0.02	0.01	
Phosphorous	36.3	3.28	0.14	3.58	1.82	
Sulfate	8.2	32.3	195	14.0	4.5	
Arsenic	0.035	0.027	0.027	0.03	0.01	0.05
Barium	0.60	0.79	0.79	0.7	2.0	1.0
Cadmium	0.35	0.35	0.35	0.2	0.2	0.01
Chromium	0.12	0.11	0.11	0.11	0.2	0.05
Copper	0.30	0.26	0.27	0.3	0.2	
Cyanides	1.0	5.1	0.6	1.0	0.1	
Lead	0.5	0.5	0.5	0.45	0.2	0.05
Mercury	0.003	0.005	0.003	0.003	0.005	0.002
Selenium	0.027	0.027	0.028	0.027	0.02	0.01
Silver	0.1	0.1	0.1	0.1	0.2	0.05
Zinc	0.17	0.23	0.54	0.23	0.2	
Endrin	0.02	0.02	0.02	0.02	0.002	0.0002
Lindane	0.015	0.015	0.015	0.015	0.001	0.004
Methoxychlor	0.11	0.11	0.11	0.11	0.01	0.1
Toxaphene	0.2	0.4	0.4	0.35	0.2	0.005
2,4-D	0.01	0.02	0.01	0.08	0.1	0.1
2, 4, 5 - TP	0.01	0.02	0.01	0.018	0.1	0.01

APPENDIX A

ESTIMATED SOLIDS GENERATION - 1985

	<u>FILTER CAKE</u>	<u>INCINERATOR ASH</u>	<u>IPO ASH</u>	<u>GRIT</u>	<u>SCREENINGS</u>
LBS/DAY DRY SOLIDS	*40,900	* 22,700	11,400	10,100	3280

*When producing filter cake there will be no incinerator ash

PHYSICAL CHARACTERISTICS OF EACH TYPE SOLID

	<u>FILTER CAKE</u>	<u>INCINERATOR ASH</u>	<u>IPO ASH</u>	<u>GRIT</u>	<u>SCREENINGS</u>
% SOLIDS	42.0	100.0	40.0	70.0	45.0
DENSITY (WET) LB/Cu. Yd.	1600	1080	1600. ^{OK}	3450	1840

CHEMICAL ANALYSIS

	<u>Screen- ings</u>	<u>Grit</u>	<u>Inciner- ator Ash</u>	<u>Filter Cake</u>	<u>Sludge Conditioning Cleanings</u>
Cyanide mg/kg wet	1.0	5.1	0.6	1.0	0.1
PCB mg/kg dry solids	1.0	1.0	0.75	1.0	1.0
Nitrogen % dry wt.			0.04		
Phosphorous as P ₂ O ₅ % dry wt.			0.76	0.32	
Potassium as K ₂ O % dry wt.			0.04	0.05	
Cadmium mg/kg dry solids			2.2	2.7	
Chromium mg/kg dry solids			52.9	55.5	
Copper mg/kg dry solids			370	344	
Lead mg/kg dry solids			131	151	
Zinc mg/kg dry solids			370	685	
Note: < = Less Than					



Burmah Technical Services, Inc.
Analytical Laboratories Division

408 Auburn Avenue
Pontiac, Michigan 48058

313-334-4747

September 17, 1987

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007
Attn: Bruce Merchant
Industrial Services Supervisor

Dear Mr. Merchant:

I enjoyed speaking with you today and discussing your general analytical requirements and our desire to be of continued service to you.

Per our telephone conversation, I have enclosed a written quotation. We welcome the opportunity to be of service to you and would appreciate your consideration for future analytical contracts.

After you have reviewed the enclosed quotation I will be calling you to answer any questions that you might have.

Sincerely,

Elisabeth Crespi

Elisabeth Crespi,
Sales Representative

EC/rd

Enclosure: Quotation



September 17, 1987

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007
Attn: Bruce Merchant,
Industrial Services Supervisor

Page 2.

Burmah Technical Services, Analytical Laboratories Division will analyze five solid samples for the following parameters:

Organochlorine Pesticides & PCB's (EPA 608)

Herbicides (2,4-D; 2,4,5-TP; by EPA 615)

EP Toxicity to include:

Arsenic	Lead
Barium	Mercury
Cadmium	Selenium
Chromium	Silver
Copper	Zinc
	Total Cyanide

Cost per sample: \$548.00

Total cost:\$2,740.00

Sincerely,

By: Elisabeth Crespi
Elisabeth Crespi, Sales Representative
Representing Burmah Technical Services

QUOTATION IS SUBJECT TO THE TERMS AND CONDITIONS IN THE ATTACHMENT
UNLESS OTHERWISE SPECIFIED.



- 1 All orders are subject to approval and acceptance by the Burmah Technical Services, Inc Sales Department
 - 2 Acceptance of orders, whether oral or written is based on the express condition that Buyer agrees to all of the terms and conditions contained herein. Acceptance of delivery by Buyer will constitute Buyer's assent to these terms and conditions. These terms and conditions represent the complete agreement of the parties, and no terms or conditions in any way adding to, modifying or otherwise changing the provisions stated herein shall bind Burmah unless made in writing and signed and approved by an officer or other authorized person at the home office of Burmah in Pontiac, Michigan. No modification of any of these terms will be effected by Burmah's delivery of items following receipt of Buyer's purchase order, shipping request or similar forms containing printed terms and conditions conflicting or inconsistent with the terms herein.
 - 3 Unless otherwise specified, terms are NET 30 days. A service charge of 1-1/2% per month may be added to all past due accounts. Unless otherwise specified, prices reflect Buyer's delivery of samples to the laboratory, routine turnaround time, routine detection levels and delivery of reports by first class mail.
 - 4 Burmah shall not be liable for delays in reporting or default in delivery for any cause beyond Burmah's reasonable control including, but not limited to, government action, shortage of labor, supplies, production or transportation facilities, labor difficulty involving employees of Burmah or others, fire, flood or other casualty. In the event of any delay in Burmah's performance due in whole or in part to any cause beyond Burmah's reasonable control, Burmah shall have such additional time for performance as may be reasonably necessary under the circumstances. Acceptance by Buyer of any data shall constitute a waiver by Buyer of any claim for damages on account of any delay in delivery.
 - 5 All taxes and excises of any nature whatsoever, now or hereafter levied by governmental authority upon the sale or transportation of any goods covered hereby, shall be paid and borne by Buyer.
 - 6 Burmah warrants that the services specified in the quotation will, where ever practical, conform to methodology which has been either specified or approved by Buyer in advance. Where advance specification and/or approval is not practical, Burmah warrants that the services specified in the quotation will be performed according to prevailing industrial standards. Burmah assumes no liability for analytical data supplied as part of this agreement which has been identified in advance as being performed by a subcontract laboratory. Such data is subject only to the warranties of said laboratories.
- THE FOREGOING WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS.**
- Burmah shall not be liable for incidental or consequential losses, damages, fines or expenses directly or indirectly arising from erroneous or disputed data. Burmah's liability hereunder is expressly limited to confirmation or refutation of data by re-analysis, or, in the absence of retained or residual sample, a re-check of all raw data and calculations, or, at Burmah's election, to the repayment of, or crediting buyer with, an amount equal to the purchase price of the data in question.*
- Burmah assumes no liability for testing requirements incorrectly interpreted and/or ordered by Buyer, samples incorrectly submitted by Buyer, including, but not limited to, improper sample containers and preservatives, and for Buyer's mis-interpretation or misuse of data. Further, Burmah assumes no liability for selection of test parameters. Where sales representatives or technical staff suggest appropriate test parameters, these suggestions do not constitute liability on Burmah's part for data determined by any regulatory agency or other authority to be incomplete.*
- Any claim by Buyer with reference to the items provided hereunder for any cause shall be deemed waived by Buyer unless submitted to Burmah in writing within thirty (30) days from the date Buyer discovered or should have discovered, any claimed breach.*
- 7 Burmah reserves the right to require payment for any items hereunder in advance, or satisfactory security, if the financial responsibility of Buyer becomes unsatisfactory to Burmah. If Buyer fails to make payment in accordance with the terms of this agreement, or fails to comply with any provision hereof, Burmah may, at its option, (and in addition to other remedies) withhold data or cancel any unfinished portion of this order. Buyer will remain liable for all unpaid accounts.
 - 8 Buyer assumes responsibility for safe access to field sample collection sites. Burmah reserves the right to refuse to perform field or analytical services where performance therein would be deemed by Burmah to cause a safety or environmental hazard. In such cases, the Buyer will be notified and will be liable only for work actually performed, including travel to the site.
 - 9 Burmah reserves the right to return to the client any and all samples where proper disposal of such samples will result in excessive cost to Burmah.
 - 10 This agreement cannot be terminated and on-going work cannot be cancelled without Burmah's prior written consent. Where work has already been initiated, Buyer shall be liable for payment for the amount of work completed.
 - 11 Waiver by Burmah of any breach of these terms and conditions shall not be construed as a waiver of any other breach, and failure to exercise any right arising from any default hereunder shall not be deemed a waiver of such right which may be exercised at any subsequent time.
 - 12 This agreement and all rights and obligations hereunder, including matters of construction, validity and performance, shall be governed by the laws of the State of Michigan, including the Uniform Commercial Code. Any claim by Buyer arising hereunder which cannot be amicably resolved shall be tried in the appropriate state or federal court in the State of Michigan. Any claim by Burmah arising hereunder may, at Burmah's option, be tried in the appropriate state or federal court in Michigan, to the jurisdiction of which Buyer hereby submits.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

September 18, 1987

Kalamazoo Water Reclamation
Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Bruce Merchant

Re: Samples for EP Toxicity Evaluations

Dear Bruce:

KAR Laboratories is pleased to respond to your request for a quotation on analytical services. The project, as understood by KAR Labs, will involve five residue samples delivered by the Kalamazoo Water Reclamation staff. KAR Labs is to perform an expanded EP Toxicity Evaluation on all five samples which will include:

- 1) Production of an extract from each sample following EP Toxicity procedures as listed in SW-846 by EPA.
- 2) Analysis of each extract for all metals listed by EPA or Michigan DNR (10).
- 3) Analysis of each extract for pesticides and herbicides listed by EPA or Michigan DNR (6).
- 4) Analysis of each extract for PCB's.

KAR Laboratories offers to perform the above project for a fee of \$480.00 per sample which is a total of \$2,400.00. A written report will be submitted approximately three weeks from the receipt of the samples.

Please call me if you have any questions or require additional information.

Sincerely,

KAR Laboratories, Inc.

William H. Bouma

William H. Bouma, Ph.D.
Director

Clayton Environmental Consultants, Inc.

22345 Roethel Drive • Novi, Michigan 48050 • (313) 344-1770

September 21, 1987

Mr. Bruce Merchant
CITY OF KALAMAZOO
1415 North Harrison
Kalamazoo, MI 49007

Dear Mr. Merchant:

In confirmation of our September 19th telephone conversation, provided below is a cost quotation for the following analyses on five residue samples.

Analysis	No of Samples	Cost/ Sample	Total Cost
EP Toxicity Includes: Arsenic Lead Barium Selenium Cadmium Silver Chromium Mercury Copper Zinc	5	\$213	\$1,065
Cyanide	5	50	250
EP Toxicity Organics	5	250	1,250
PCB	5	85	425
	Total		<u>\$2,990</u>

We look forward to working with the City of Kalamazoo on this project.
Please call if I can be of further assistance.

Sincerely,

Catherine L. Crozier
Supervisor, Client Services

CLC:JS

PRIVATE/CONTRACT LABORATORY INFORMATION FORM

COMPANY/LABORATORY: BURMAIT TECHNICAL SERVICES, INC.

ADDRESS: ANALYTICAL LABORATORIES DIVISION.

408 AUBURN AVENUE

CITY: PONTIAC STATE: MICH ZIP CODE: 48058

TELEPHONE #: - 1-313-334-4747 TIME: 10:40 AM

CONTACT PERSON: ELIZABETH DATE: 9-17-87

called
back
@
10 57 AM

SAMPLING INSTRUCTIONS/CONTAINERS/ETC:

SHIPPING INSTRUCTIONS/INFORMATION: 2-3 week turnaround time all
They will supply bottles

FORMAL QA PROGRAM AVAILABLE/RECEIVED?: YES NO

PRIVATE/CONTRACT LABORATORY INFORMATION FORM

COMPANY/LABORATORY: CLAYTON ENVIRONMENTAL CONSULTANTS

ADDRESS: ANALYTICAL LABORATORY SERVICES

22395 ROETHEL DRIVE

CITY: Novi STATE: MICHIGAN ZIP CODE: 48050

TELEPHONE #: 1-313-344-1770 TIME: 10 50 AM

CONTACT PERSON: KATHERINE DATE: 9-17-87

DNF

9-17-87

(47)
pm

SAMPLING INSTRUCTIONS/CONTAINERS/ETC:-

SHIPPING INSTRUCTIONS/INFORMATION: 2-3 week Turnaround time
they will supply letters

FORMAL QA PROGRAM AVAILABLE/RECEIVED?: YES ✓ NO _____

PRIVATE/CONTRACT LABORATORY INFORMATION FORM

COMPANY/LABORATORY: KAR LABORATORIES, INC.

ADDRESS: 4425 MANCHESTER ROAD

CITY: KALAMAZOO STATE: MICH ZIP CODE: 49002

TELEPHONE #: 1-616-381-9666 TIME: 10⁵⁸_{AM}

CONTACT PERSON: William H. Bouma, Ph.D. DATE: 9-17-87

SAMPLING INSTRUCTIONS/CONTAINERS/ETC:

SHIPPING INSTRUCTIONS/INFORMATION: Need 2-3 weeks turnaround
time - will supply bottles.

FORMAL QA PROGRAM AVAILABLE/RECEIVED?: YES NO

EP TOXICITY EVALUATION
of
RESIDUE SAMPLES
for
KALAMAZOO WATER RECLAMATION PLANT

KAR Project No.: 871405
October 7, 1987

Performed by:
KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

INTRODUCTION

This project involved examination of five residue samples from the Kalamazoo Water Reclamation Plant for the characteristic of EP Toxicity as defined by the United States Environmental Protection Agency in the Federal Register (40 CFR Part 261.4) and as applied in Michigan by the Department of Natural Resources.

The samples were received in individual one liter glass containers on 9-9-87. They were provided by Mr. Bruce Merchant of the Kalamazoo Water Reclamation Plant who requested that the evaluation include all standard parameters plus PCB analysis of the extracts.

PROCEDURE

The Extraction Procedure (EP) followed "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", SW-846, 2nd Edition, United States EPA.

The solid portion of the sample and 16 times the original sample weight of distilled water were placed into a two liter container. During the extraction period, the pH was adjusted to 5.0 ± 0.2 by the addition of 0.5N Acetic Acid. At the end of the 24 hour extraction period the solid portion was separated from the liquid by filtration through a 0.45 micron filter to yield the final extract for analysis.

"Methods for Chemical Analysis of Water and Wastes", by USEPA and "Standard Methods for the Examination of Water and Wastewater" were used for the analytical procedures. The resulting data is shown in the following tables.

SAMPLE DESCRIPTIONS

KAR # 871405-1 was identified as "Grit"

The sample consisted of small damp particles similar to soil. Most of the material was brown to black, but specks of lighter color were observed.

KAR # 871405-2 was identified as "Incinerator Ash"

The sample consisted of a very fine, homogenous powdery material. It was very dry and tan in color.

KAR # 871405-3 was identified as "IPO Ash"

The sample consisted of a very fine black solid with free water. The solid was packed tightly but upon mixing, flowed with water.

KAR # 871405-4 was identified as "Filter Cake"

The sample consisted of clumps of gray fibrous material which was easily broken apart.

KAR # 871405-5 was identified as "Municipal & Industrial Screenings"

The sample consisted of a wide variety of materials including fibrous, greasy, stringy and clumps of tan, gray, white, brown and black material.

SOLIDS ANALYSIS RESULTS

All results reported as % of sample

<u>KAR Lab. Code</u>	<u>Sample I.D.</u>	<u>Total Solids</u>	<u>Volatile Solids</u>	<u>Non-combustible Solids</u>
871405-				
-1	Grit	84.62	9.39	75.23
-2	Incinerator Ash	99.54	0.21	99.33
-3	IPO Ash	64.79	4.44	60.35
-4	Filter Cake	50.39	32.53	17.86
-5	Municipal & Industrial Screenings	33.52	30.03	3.49

TABLE 1

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*

of
GRIT (KAR # 871405-1)
for
KALAMAZOO WATER RECLAMATION PLANT
(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	<0.01	5.0 mg/L
Barium	0.9	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.02	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.48	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 2

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

GRIT (KAR # 871405-1)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 3

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*
of
INCINERATOR ASH (KAR # 871405-2)
for
KALAMAZOO WATER RECLAMATION PLANT
(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	0.02	5.0 mg/L
Barium	<0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.05	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.41	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 4

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

INCINERATOR ASH (KAR # 871405-2)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 5

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*

of
IPO ASH (KAR # 871405-3)
for
KALAMAZOO WATER RECLAMATION PLANT
(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	0.04	5.0 mg/L
Barium	0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.02	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	0.04	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.22	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 6

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

IPO ASH (KAR # 871405-3)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 7

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*
of
FILTER CAKE (KAR # 871405-4)
for
KALAMAZOO WATER RECLAMATION PLANT
(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	0.02	5.0 mg/L
Barium	<0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.02	100.0 mg/L
Lead	<0.01	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	<0.02	5.0 mg/L
Zinc	0.16	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 8

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

FILTER CAKE (KAR # 871405-4)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

TABLE 9

Comparison of Analytical Results
with Maximum EP Toxicity Concentrations*

of

MUNICIPAL & INDUSTRIAL SCREENINGS (KAR # 871405-5)

for

KALAMAZOO WATER RECLAMATION PLANT

(Results are expressed as mg/L)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Arsenic	<0.01	5.0 mg/L
Barium	0.5	100.0 mg/L
Cadmium	<0.01	1.0 mg/L
Chromium	<0.02	5.0 mg/L
Copper	0.04	100.0 mg/L
Lead	0.02	5.0 mg/L
Mercury	<0.01	0.2 mg/L
Selenium	<0.01	1.0 mg/L
Silver	0.02	5.0 mg/L
Zinc	1.42	500.0 mg/L

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

TABLE 10

PESTICIDE/HERBICIDE, PCB ANALYSIS RESULTS

Results are expressed as mg/L

MUNICIPAL & INDUSTRIAL SCREENINGS (KAR # 871405-5)

<u>Parameter</u>	<u>Sample Extract Concentration</u>	<u>Maximum Concentration*</u>
Endrin	<0.001	0.02
Lindane	<0.004	0.4
Methoxychlor	<0.1	10.0
Toxaphene	<0.001	0.5
2,4-D	<0.003	10.0
2,4,5-TP	<0.003	1.0
PCB's	<0.001	---

*As designated by the Michigan DNR in accordance with or in addition to the USEPA.

CONCLUSION

All values were far below the "Maximum Concentrations" specified by the USEPA or Michigan DNR. Additionally, PCB was not detected. The sample did not exhibit the characteristic of EP Toxicity.

CITY OF KALAMAZOO
CAL REPORT# 12194

SAMPLE RECEIVED 03/13/91

PAGE 1

LAB# 1030514 PRIMARY INFLUENT PI 07291

ANALYTICAL
RESULTS
ug/l

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 12194

SAMPLE RECEIVED 03/13/91

PAGE 2

LAB# 1030515 INDUSTRIAL INFLUENT II 07291

ANALYTICAL
RESULTS
ug/l

PCB'S BY AROCHLOR

PCB-1016	< 0.4
PCB-1221	< 0.4
PCB-1232	< 0.4
PCB-1242	< 0.4
PCB-1248	< 0.4
PCB-1254	< 0.4
PCB-1260	< 0.4
PCB-1262	< 0.4
PCB, Total	< 0.4*

*Elevated level due to matrix interference.

CITY OF KALAMAZOO
CAL REPORT# 12194

SAMPLE RECEIVED 03/13/91

PAGE 3

LAB# 1030516 INCINERATOR ASH IA 07291

ANALYTICAL
RESULTS
mg/kg

Total Solids, % 99.9

Mercury, Total, Dry Wt. < 0.01

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 12194

SAMPLE RECEIVED 03/13/91

PAGE 4

LAB# 1030517 BELT PRESS CAKE BCC 07291

ANALYTICAL
RESULTS
mg/kg

Total Solids, % 28

Mercury, Total, Dry Wt. 0.68

PCB'S BY AROCHLOR

PCB-1016 < 0.5

PCB-1221 < 0.5

PCB-1232 < 0.5

PCB-1242 < 0.5

PCB-1248 < 0.5

PCB-1254 < 0.5

PCB-1260 < 0.5

PCB-1262 < 0.5

PCB, Total < 0.5*

*Elevated level of detection due to matrix interference.

CITY OF KALAMAZOO
CAL REPORT# 12194

SAMPLE RECEIVED 03/13/91

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LAB# 1030518 DSE PRESS CAKE DSE PC 07291

ANALYTICAL
RESULTS
mg/kg

Total Solids, % 51

Mercury, Total, Dry Wt. 0.69

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

וְיַעֲשֵׂה כָּל־בְּנֵי־יִשְׂרָאֵל

Nº 061764.

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS: (Signature) <i>Joyce G. Breff & Plant Operators</i>	PURPOSE OF ANALYSIS: <i>PCB & Hg</i>
---	---

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Joyce J. Bruegg</i>	3/13/91 3:30 PM	<i>D. Kagan</i>	3/13/91 3:30 PM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>D. Kagan</i>	3/13/91 5:30 PM	<i>Patricia L. Lee</i>	3/13/91 5:30 PM				

REMARKS: PCB on all samples. Hg on Incinerator Ash, Belt Press cake or DSE Press Cake.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

July 23, 1991

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 7244-91-E1-2

Samples analyzed by: L. DeWitt, M. Carlson

Samples collected by: M. Knap

Analyses requested by: K. Leanin

Date/time samples submitted: 07-09-91 11:30 am

PO #: 53286

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Dioxin

Samples Collected:

FECL #: 7244-91-E1

Tag: FPC 02891-L

Container: Glass Bottles

Sample type: Liquid

Preservation: None

Sampling date/time: 1-28-91

FECL #: 7244-91-E2

Tag: INA 02891-L

Container: Glass Bottles

Sample type: Liquid

Preservation: None

Sampling date/time: 1-28-91

Analytical Laboratory Report
City of Kalamazoo
FECL #: 7244-91-E1
July 23, 1991
Page 2 of 2

FECL #:	7244-91-E1	7244-91-E2
Tag:	FPC 02891-L	INA 2891-2

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l
Dioxin	<0.01 mg/l	<0.01 mg/l

V.F. Murshak/RA
Violetta F. Murshak
Laboratory Manager

VFM/keh

CHAIN OF CUSTODY RECORD

Nº 002875

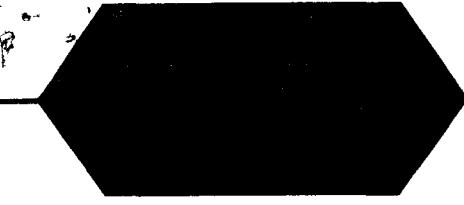
**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)  (M. KNOPF)	PURPOSE OF ANALYSIS: PCB/DIOXIN ANALYSIS
---	---

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	7/9/91 1129 A.m	Mark Gilbert	7/9/91 1130 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

ARKS:
PLEASE FURNISH RESULTS TO: LABORATORY SUPERVISOR, @ ABOVE ADDRESS.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

September 30, 1991

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 7669-91-E1-2

Samples analyzed by: L. DeWitt, M. Murshak

Samples collected by: J.M. Knop

Analyses requested by: K. Leanin

Date/time samples submitted: 9-09-91 11:00 am

PO #: 53286

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: ASTM-A Leachate

Samples Collected:

FECL #: 7669-91-E1

Tag: 1 Incinerator Ash Leachate
INA 17991-L

Container: Glass

Sample type: Liquid

Preservation: None

Sampling date/time: 6-28-91

FECL #: 7669-91-E2

Tag: 2 DSE Filter Press Cake Leachate
FPC 17991-L

Container: Glass

Sample type: Liquid

Preservation: None

Sampling date/time: 6-28-91

Analytical Laboratory Report
City of Kalamazoo
FECL #: 7669-91-E1-2
September 30, 1991
Page 2 of 2

FECL #:	7669-91-E1	7669-91-E2
Tag:	1 Incinerator Ash Leachate INA 17991-L	2 DSE Filter Press Cake Leachate FPC 17991-L

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l
Dioxin	<0.005 mg/l	<0.005 mg/l

V.F. Murshak/mf

Violetta F. Murshak
Laboratory Manager

VFM/ajc

CHAIN OF CUSTODY RECORD

Nº 001369

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

October 22, 1991 (Revised Report to replace report dated September 27, 1991)

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 7751-91-E1-6

Samples analyzed by: L. DeWitt, P. Roettger

Samples collected by: R. de los Santos

Analyses requested by: K. Leanin

Date/time samples submitted: 9-19-91 7:54 am

PO #: 53286

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: Kazoo Waste Water Plant - PCB & Hg

Samples Collected:

FECL #: 7751-91-E1

Tag: 1 Belt Press Cake BPC 26091

Container: Glass Jar

Sample type: Solid

Preservation: None

Sampling date/time: 9-17-91

FECL #: 7751-91-E2

Tag: 2 DSE Press Cake DPC 26091

Container: Glass Jar

Sample type: Solid

Preservation: None

Sampling date/time: 9-17-91

FECL #: 7751-91-E3

Tag: 3 Incinerator Ash IA 26091

Container: Glass Jar

Sample type: Solid

Preservation: None

Sampling date/time: 9-17-91

FECL #: 7751-91-E4

Tag: 4 Tertiary Effluent TE 26191

Container: Glass Jar

Sample type: Liquid

Preservation: None

Sampling date/time: 9-18-91

FECL #: 7751-91-E5

Tag: 5 Industrial Inf. II 26191

Container: Glass Jar

Sample type: Liquid

Preservation: None

Sampling date/time: 9-18-91

FECL #: 7751-91-E6

Tag: 6 Primary Inf. PI 26191

Container: Glass Jar

Sample type: Liquid

Preservation: None

Sampling date/time: 9-18-91

Analytical Laboratory Report
City of Kalamazoo
FECL #: 7751-91-E1-6
October 22, 1991 (Revised Report)
Page 2 of 2

FECL #:	7751-91-E1	7751-91-E2	7751-91-E3
Tag:	1 Belt Press Cake BPC 26091	2 DSE Press Cake DPC 26091	3 Incinerator Ash IA 26091

Metals

Mercury	0.188 mg/kg*	0.930 mg/kg*	<0.010mg/kg*
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Solids

Total Solids	44.9 %	53.9 %	100 %
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Organic

PCB	<0.01 mg/kg	<0.01 mg/kg	<0.01 mg/kg
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FECL #:	7751-91-E4	7751-91-E5	7751-91-E6
Tag:	4 Tertiary Effluent TE 26191	5 Industrial Influent II 26191	6 Primary Influent PI 26191

Metals

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.001 mg/l	<0.01 mg/l*	<0.01 mg/l*
-----	-------------	-------------	-------------

*Higher Detection Limit due to matrix interference

V.F. Murshak/ep

Violetta F. Murshak
Laboratory Manager

VFM/cqv

Fire & Environmental Consulting Laboratory

One East Complex • 1451 East Lansing Dr , Ste 222 • East Lansing, MI

CHAIN OF CUSTODY RECORD

Client/P O # _____ Contact Person TAZ Scarr Anisa Address _____

Relinquished by (Sig)	Date	Time	Relinquished to lab by (Sig)	Date	Time	
Passer Crasan	1/9/92	3:41 PM				
Received by (Sig)	Date	Time	Received for lab by (Sig)	Date	Time	
Jeff Back	1-9-92	3:53 PM				
Relinquished by (Sig)	Date	Time	Seal # _____ Seal # _____	Seal Intact Seal Intact	Yes No Yes No	Initials _____ Initials _____
Received by (Sig)	Date	Time	Notes (Temp on arrival) _____			

CITY OF KALAMAZOO
CAL REPORT# 11623

SAMPLE RECEIVED 02/01/91

PAGE 1

LAB# 1020179 PRIMARY INFLUENT PI 03291

ANALYTICAL
RESULTS
ug/l

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

=

CITY OF KALAMAZOO
CAL REPORT# 11623

SAMPLE RECEIVED 02/01/91

PAGE 2

LAB# 1020180 INDUSTRIAL INFLUENT II 03291

=====

ANALYTICAL
RESULTS
ug/l

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

.² =

CITY OF KALAMAZOO
CAL REPORT# 11623

SAMPLE RECEIVED 02/01/91

PAGE 3

LAB# 1020181 BELT PRESS CAKE BPC 03291

ANALYTICAL
RESULTS
mg/kg

Mercury, Total, Dry Wt. 0.88

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1
Total Solids, %	26

.5 =

CITY OF KALAMAZOO
CAL REPORT# 11623

SAMPLE RECEIVED 02/01/91

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LAB# 1020182 DSE PRESS CAKE DSE PC 03291

=====

ANALYTICAL
RESULTS
mg/kg

Mercury, Total, Dry Wt. 0.67

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1
Total Solids, %	48

.. =

CITY OF KALAMAZOO
CAL REPORT# 11623

SAMPLE RECEIVED 02/01/91

PAGE 5

LAB# 1020183 INCINERATOR ASH IA 03291

ANALYTICAL
RESULTS
mg/kg

Mercury, Total, Dry Wt. < 0.03

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1
Total Solids, %	98

✓ =

CHAIN OF CUSTODY RECORD

Nº 001897 -

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

Joyce G. Braggs

PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS: PCB on all samples & Hg on Belt Press Cake DSE Press Cake & Incinerator Ash

CITY OF KALAMAZOO
CAL REPORT# 11769

SAMPLE RECEIVED 02/11/91

PAGE 1

LAB# 1020693 BELT PRESS CAKE BPC 03891

QX-101
ANALYTICAL
RESULTS
mg/kg

Total Solids, % 31

Mercury, Total, Dry Wt. 1.0

PCB'S BY AROCHLOR

PCB-1016	< 0.5*
PCB-1221	< 0.5*
PCB-1232	< 0.5*
PCB-1242	< 0.5*
PCB-1248	< 0.5*
PCB-1254	< 0.5*
PCB-1260	< 0.5*
PCB-1262	< 0.5*
PCB, Total	< 0.5*

*Elevated level of detection due to matrix interference.

CITY OF KALAMAZOO
CAL REPORT# 11769

SAMPLE RECEIVED 02/11/91

PAGE 2

LAB# 1020694 DSE PRESS CAKE DSEPC 03891

=====

ANALYTICAL
RESULTS
mg/kg

Total Solids, % 48

Mercury, Total, Dry Wt. 0.77

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 11769

SAMPLE RECEIVED 02/11/91

PAGE 3

LAB# 1020695 INCINERATOR ASH IA 03891

=====

ANALYTICAL
RESULTS
mg/kg

Total Solids, % 99.7

Mercury, Total, Dry Wt. < 0.03

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 11769

SAMPLE RECEIVED 02/11/91

PAGE 4

LAB# 1020696 PRIMARY INFLUENT PI 04291

8-1-71
=====

ANALYTICAL
RESULTS
ug/l

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

CITY OF KALAMAZOO
CAL REPORT# 11769

SAMPLE RECEIVED 02/11/91

PAGE 5

LAB# 1020697 INDUSTRIAL INFLUENT II 04291

ANALYTICAL
RESULTS
ug/l

PCB'S BY AROCHLOR

PCB-1016	< 0.1
PCB-1221	< 0.1
PCB-1232	< 0.1
PCB-1242	< 0.1
PCB-1248	< 0.1
PCB-1254	< 0.1
PCB-1260	< 0.1
PCB-1262	< 0.1
PCB, Total	< 0.1

CHAIN OF CUSTODY RECORD

Nº 001900

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)	Joyce A. Bragg	PURPOSE OF ANALYSIS:	PCB + Hg
--------------------------	----------------	----------------------	----------

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>George Q. Beatty</i>	2/14/91	<i>D. Hayes</i>	2/14/91 1:13 PM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>D Hayes</i>	2/14/91	<i>4:20 PM</i>	2/14/91 4:20 P				

REMARKS: PCB on all samples + Hg on samples #3, 4 & 5.



Analytical Laboratory Report
City of Kalamazoo
FECL #: 7539-91-E1-6
August 29, 1991
Page 2 of 2

FECL #:	7539-91-E1	7539-91-E2	7539-91-E3
Tag:	1 Belt Press Cake BPC 23191	2 DSE Cake DSE 23191	3 Incinerator Ash IA 23191

Metal

Mercury	0.070 mg/kg*	0.430 mg/kg*	<0.008 mg/kg*
---------	--------------	--------------	---------------

*Analyzed on a dry weight basis

Solids

Total Solids	29.4 %	54.9 %	99.6 %
--------------	--------	--------	--------

Organic

PCB	<0.01 mg/kg	<0.01 mg/kg	<0.01 mg/kg
-----	-------------	-------------	-------------

FECL #:	7539-91-E4	7539-91-E5	7539-91-E6
Tag:	4 Tertiary Eff. TE 23191	5 Primary Inf. PI 23191	6 Industrial Inf. II 23191

Metal

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.0001 mg/l
-----	--------------	--------------	--------------

V.F. Murshak/keh

Violetta F. Murshak
Laboratory Manager

VFM/keh

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

January 7, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FCL #: 8434-91-E1-12

Samples analyzed by: L. DeWitt, P. Roettger, J. Voronova

Samples collected by: R. de los Santos

Analyses requested by: K. Leanin

Date/time samples submitted: 12-12-91 7:51 am

PO #: 53286

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: Kalamazoo Waste Water

Samples Collected:

FCL #: 8434-91-E1

Tag: 1 Incinerator Ash IA34391

Container: Glass

Sample type: Solid

Preservation: None

Sampling date/time: 12-09-91

FCL #: 8434-91-E2

Tag: 2 Belt Press Cake EPC 34391

Container: Glass

Sample type: Solid

Preservation: None

Sampling date/time: 12-09-91

FCL #: 8434-91-E3

Tag: 3 DSE Cake DSE 34391

Container: Glass

Sample type: Solid

Preservation: None

Sampling date/time: 12-09-91

FCL #: 8434-91-E4

Tag: 4 Tertiary Eff. TE 34391

Container: Glass

Sample type: Liquid

Preservation: None

Sampling date/time: 12-09-91

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8434-91-E1
January 7, 1992
Page 2 of 4

FECL #: 8434-91-E5
Tag: 5 Primary Inf. PI 34391
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-09-91

FECL #: 8434-91-E7
Tag: 7 Incinerator Ash IA34591
Container: Glass
Sample type: Solid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E9
Tag: 8 DSE Cake DSE 34591
Container: Glass
Sample type: Solid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E11
Tag: 11 Industrial Inf. II 34591
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E6
Tag: 6 Industrial Inf. II 34391
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-09-91

FECL #: 8434-91-E8
Tag: 8 Belt Press Cake BPC 34591
Container: Glass
Sample type: Solid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E10
Tag: 10 Primary Inf. PI 34591
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E12
Tag: 12 Tertiary Eff. TE 34591
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-11-91

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8434-91-E1-12
January 7, 1992
Page 3 of 4

FECL #:	8434-91-E1	8434-91-E2	8434-91-E3
Tag:	1 Incinerator Ash IA 34391	2 Belt Press Cake BPC 34391	3 DSE Cake DSE 34391

Metals

Mercury	<0.020 mg/kg*	0.317 mg/kg*	0.297 mg/kg*
---------	---------------	--------------	--------------

Solids

Total Solids	99.6 %	30.1 %	51.8 %
--------------	--------	--------	--------

Organic

PCB	<0.1 mg/kg**	<1.0 mg/kg**	<0.01 mg/kg
-----	--------------	--------------	-------------

FECL #:	8434-91-E4	8434-91-E5	8434-91-E6
Tag:	4 Tertiary Eff. TE 34391	5 Primary Inf. PI 34391	6 Industrial Inf. II 34391

Metals

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.0001 mg/l
-----	--------------	--------------	--------------

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8434-91-E1-12
January 7, 1992
Page 4 of 4

FECL #:	8434-91-E7	8434-91-E8	8434-91-E9
Tag:	7 Incinerator Ash IA 34591	8 Belt Press Cake EPC 34591	9 DSE Cake DSE 34591

Metals

Mercury	<0.020 mg/kg*	0.354 mg/kg*	0.304 mg/kg*
---------	---------------	--------------	--------------

Solids

Total Solids	100 %	28.8 %	56.1 %
--------------	-------	--------	--------

Organic

PCB	<0.2 mg/kg**	<1.0 mg/kg**	<0.01 mg/kg
-----	--------------	--------------	-------------

FECL #:	8434-91-E10	8434-91-E11	8434-91-E12
Tag:	10 Primary Inf. PI 34591	11 Industrial Inf. II 34591	12 Tertiary Eff. TE 34591

Metals

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.0002 mg/l**	<0.0002 mg/l**	<0.0002 mg/l**
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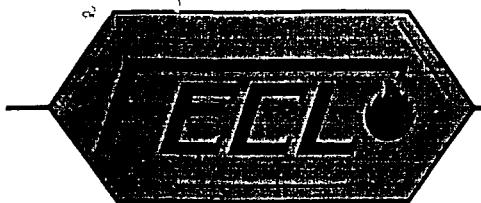
*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference

V.F. Murshak/ea

Violetta F. Murshak
Laboratory Manager

VFM/cqv



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

January 7, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 8434-91-E1-12

Samples analyzed by: L. DeWitt, P. Roettger, J. Voronova

Samples collected by: R. de los Santos

Analyses requested by: K. Leanin

Date/time samples submitted: 12-12-91 7:51 am

PO #: 53286

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: Kalamazoo Waste Water

Samples Collected:

FECL #: 8434-91-E1

Tag: 1 Incinerator Ash IA34391

Container: Glass

Sample type: Solid

Preservation: None

Sampling date/time: 12-09-91

FECL #: 8434-91-E2

Tag: 2 Belt Press Cake BPC 34391

Container: Glass

Sample type: Solid

Preservation: None

Sampling date/time: 12-09-91

FECL #: 8434-91-E3

Tag: 3 DSE Cake DSE 34391

Container: Glass

Sample type: Solid

Preservation: None

Sampling date/time: 12-09-91

FECL #: 8434-91-E4

Tag: 4 Tertiary Eff. TE 34391

Container: Glass

Sample type: Liquid

Preservation: None

Sampling date/time: 12-09-91

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8434-91-E1
January 7, 1992
Page 2 of 4

FECL #: 8434-91-E5
Tag: 5 Primary Inf. PI 34391
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-09-91

FECL #: 8434-91-E7
Tag: 7 Incinerator Ash IA34591
Container: Glass
Sample type: Solid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E9
Tag: 9 DSE Cake DSE 34591
Container: Glass
Sample type: Solid
Preservation: None
Sampling date/time: 12-11-91

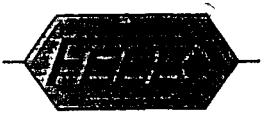
FECL #: 8434-91-E11
Tag: 11 Industrial Inf. II 34591
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E6
Tag: 6 Industrial Inf. II 34391
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-09-91

FECL #: 8434-91-E8
Tag: 8 Belt Press Cake BPC 34591
Container: Glass
Sample type: Solid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E10
Tag: 10 Primary Inf. PI 34591
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-11-91

FECL #: 8434-91-E12
Tag: 12 Tertiary Eff. TE 34591
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date/time: 12-11-91



Analytical Laboratory Report
City of Kalamazoo
FECL #: 8434-91-E1-12
January 7, 1992
Page 3 of 4

FECL #:	8434-91-E1	8434-91-E2	8434-91-E3
Tag:	1 Incinerator Ash IA 34391	2 Belt Press Cake BPC 34391	3 DSE Cake DSE 34391

Metals

Mercury	<0.020 mg/kg*	0.317 mg/kg*	0.297 mg/kg*
---------	---------------	--------------	--------------

Solids

Total Solids	99.6 %	30.1 %	51.8 %
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Organic

PCB	<0.1 mg/kg**	<1.0 mg/kg**	<0.01 mg/kg
-----	--------------	--------------	-------------

FECL #:	8434-91-E4	8434-91-E5	8434-91-E6
Tag:	4 Tertiary Eff. TE 34391	5 Primary Inf. PI 34391	6 Industrial Inf. II 34391

Metals

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.0001 mg/l
-----	--------------	--------------	--------------

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8434-91-E1-12
January 7, 1992
Page 4 of 4

FECL #:	8434-91-E7	8434-91-E8	8434-91-E9
Tag:	7 Incinerator Ash IA 34591	8 Belt Press Cake BPC 34591	9 DSE Cake DSE 34591

Metals

Mercury	<0.020 mg/kg*	0.354 mg/kg*	0.304 mg/kg*
---------	---------------	--------------	--------------

Solids

Total Solids	100 %	28.8 %	56.1 %
--------------	-------	--------	--------

Organic

PCB	<0.2 mg/kg**	<1.0 mg/kg**	<0.01 mg/kg
-----	--------------	--------------	-------------

FECL #:	8434-91-E10	8434-91-E11	8434-91-E12
Tag:	10 Primary Inf. PI 34591	11 Industrial Inf. II 34591	12 Tertiary Eff. TE 34591

Metals

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.0002 mg/l**	<0.0002 mg/l**	<0.0002 mg/l**
-----	----------------	----------------	----------------

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference

V.F. Murshak/ra
Violetta F. Murshak
Laboratory Manager

VFM/cqv



Fire & Environmental Consulting Laboratories, Inc.

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Indianapolis (317) 879-0913 FAX (317) 879-0914

April 2, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 8901-92-E1-3
8902-92-E1-3

Samples analyzed by: D. Eldmen, P. Roettger, J. Voronova

Samples collected by: R. de los Santos

Analyses requested by: K. Leanin

Date/time samples submitted: 03-05-92 7:45 am

PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 8901-92-E1
Tag: 1 Belt Press Cake EPC 06492
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-04-92

FECL #: 8901-92-E3
Tag: 3 Incinerator Ash II 06492
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-04-92

FECL #: 8901-92-E2
Tag: 2 DSE Cake DSE 06492
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-04-92

FECL #: 8902-92-K1
Tag: 4 Tertiary Eff. TE 06492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-04-92

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8901-92-E1-3 et al
April 2, 1992
Page 2 of 3

FECL #: 8902-92-E2
Tag: 5 Primary Inf. PI 06492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-04-92

FECL #: 8902-92-E3
Tag: 6 Industrial Inf. II 06492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-04-92

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8901-92-E1-3 et al
April 2, 1992
Page 3 of 3

FECL #:	8901-92-E1	8901-92-E2	8901-92-E3
Tag:	1 Belt Press BPC 06492	2 DSE Cake DSE 06492	3 Incinerator Ash II 06492
Metals			
Mercury	0.111 mg/kg*	0.460 mg/kg*	<0.020 mg/kg*
Solids			
Total Solids	32.2 %	55.1 %	99.8 %
Organic			
PCB	<5 mg/kg**	<0.01 mg/kg	<0.1 mg/kg**
FECL #:	8902-92-E1	8902-92-E2	8902-92-E3
Tag:	4 Tertiary Eff. TE 06492	5 Primary Inf. PI 06492	6 Industrial Inf. II 06492
Metals			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic			
PCB	<0.0001 mg/l	<0.001 mg/l**	<0.01 mg/l**

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference.

V.F. Murshak, M.A.

Violetta F. Murshak
Laboratory Manager

VFM/cqv

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 1 of 5

FECL #: 8901-92-E1
TAG: 1 Belt Press Cake EPC 06492

Total Solid

Analytical Method: 160.3
Date of Analysis: 3-05-92
Analyst: J. Voronova

Metal/Hg

Analytical Method:	245.1	Preparation Method:	245.1
Date of Analysis:	4-01-92	Date of Preparation:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Size:	100mls/3.35g		

PCB

Analytical Method:	8080	Preparation Method:	3550
Date of Analysis:	3-10-92	Date of Preparation:	3-07-92
Analyst:	D. Edelman	Analyst:	S. Gliga
Sample Weight/Vol. :	20.28g		
Dilution Factor:	100		

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 2 of 5

FECL #: 8901-92-E2
TAG: 2 DSK Cake DSE 06492

Total Solid

Analytical Method: 160.3
Date of Analysis: 3-05-92
Analyst: J. Voronova

Metal/Hg

Analytical Method:	245.1	Preparation Method:	245.1
Date of Analysis:	4-01-92	Date of Preparation:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger

Sample Size: 100mls/3.21g

PCB

Analytical Method:	8080	Preparation Method:	3550
Date of Analysis:	3-08-92	Date of Preparation:	3-06-92
Analyst:	D. Edelman	Analyst:	S. Gliga

Sample Weight/Vol.: 21.36g
Dilution Factor: 1

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 3 of 5

FECL #: 8901-92-E3
TAG: 3 Incinerator Ash II 06492

Total Solid

Analytical Method: 160.3
Date of Analysis: 3-05-92
Analyst: J. Voronova

Metal/Hg

Analytical Method:	245.1	Preparation Method:	245.1
Date of Analysis:	4-01-92	Date of Preparation:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger

Sample Size: 100mls/2.60g

PCB

Analytical Method:	8080	Preparation Method:	3550
Date of Analysis:	3-08-92	Date of Preparation:	3-06-92
Analyst:	D. Edelman	Analyst:	S. Gliga

Sample Weight/Vol.: 20.28g
Dilution Factor: 10

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 4 of 5

FECL #: 8902-92-E1
TAG: 4 Tertiary Eff. TE 06492

Metal/Hg

Analytical Method:	245.1	Preparation Method:	245.1
Date of Analysis:	4-01-92	Date of Preparation:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Size:	100mls/100mls		

PCB

Analytical Method:	608	Preparation Method:	3510
Date of Analysis:	3-08-92	Date of Preparation:	3-06-92
Analyst:	D. Edelman	Analyst:	S. Gliga
Sample Weight/Vol.:	550ml		
Dilution Factor:	1		

FECL #: 8902-92-E2
TAG: 5 Primary Inf. PI 06492

Metal/Hg

Analytical Method:	245.1	Preparation Method:	245.1
Date of Analysis:	4-01-92	Date of Preparation:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Size:	100mls/100mls		

PCB

Analytical Method:	608	Preparation Method:	3510
Date of Analysis:	3-08-92	Date of Preparation:	3-06-92
Analyst:	D. Edelman	Analyst:	S. Gliga
Sample Weight/Vol.:	550ml		
Dilution Factor:	10		

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 5 of 5

FECL #: 8902-92-E3
TAG: 6 Industrial Inf. II 06492

Metal/Hg

Analytical Method:	245.1	Preparation Method:	245.1
Date of Analysis:	4-01-92	Date of Preparation:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Size:	100mls/100mls		

PCB

Analytical Method:	608	Preparation Method:	3510
Date of Analysis:	3-08-92	Date of Preparation:	3-06-92
Analyst:	D. Edelman	Analyst:	S. Gliga
Sample Weight/Vol.:	540ml		
Dilution Factor:	100		

CHAIN OF CUSTODY RECORD

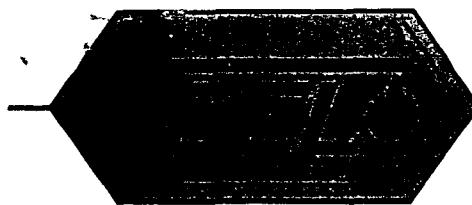
Nº 002906

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)						PURPOSE OF ANALYSIS:			
Robert de los Santos						PCB & Hg			
LE VEL ER	NUMBER & SIZE OF CONTAINER	D ATE	T I M E	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS			
6492	8 oz.	3-4-92			✓	Kalamazoo Clastic Water			
492	8oz.	3-4-92			✓				
492	8oz.	3-4-92			✓				
92	1 liter	3-4-92			✓				
492	1 liter	3-4-92			✓				
492	1 liter	3-4-92			✓				
RECEIVED BY: <i>[Signature]</i>		DATE/TIME 3/18/92 7:45 AM	3 RELINQUISHED BY: (Signature)			DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	
RECEIVED BY: (Signature)		DATE/TIME	4 RELINQUISHED BY: (Signature)			DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	

REMARKS:

Respects to Mr



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

August 27, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 9973-92-E1-3
9974-92-E1-3

Samples collected by: R. de los Santo
Analyses requested by: K. Leanin
Date/time samples submitted: 08-10-92 10:59 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 9973-92-E1
Tag: 1 Tertiary Eff. TE 21992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 08-06-92

FECL #: 9973-92-E3
Tag: 3 Primary Inf. PI 21992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 08-06-92

FECL #: 9973-92-E2
Tag: 2 Industrial Inf. II 21992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 08-06-92

FECL #: 9974-92-E1
Tag: 4 Incinerator Ash IA 21992
Container: Glass
Sample type: Ash
Preservation: None
Sampling date: 08-06-92

Analytical Laboratory Report
City of Kalamazoo
FECL #: 9973-92-E1-3 et al
August 27, 1992
Page 2 of 3

FECL #: 9974-92-E2
Tag: 5 Belt Press Cake BPC 21992
Container: Glass
Sample type: Press Cake
Preservation: None
Sampling date: 08-06-92

FECL #: 9974-92-E3
Tag: 6 DSE Cake DSE 21992
Container: Glass
Sample type: DSE Cake
Preservation: None
Sampling date: 08-06-92

Analytical Laboratory Report
City of Kalamazoo
FECL #: 9973-92-E1-3 et al
August 27, 1992
Page 3 of 3

FECL #:	9973-92-E1	9973-92-E2	9973-92-E3
Tag:	1 Tertiary Eff. TE 21992	2 Industrial Inf. II 21992	3 Primary Inf. PI 21992
Metals			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic			
PCB	<0.0001 mg/l	<0.01 mg/l**	<0.001 mg/l**

FECL #:	9974-92-E1	9974-92-E2	9974-92-E3
Tag:	4 Incinerator Ash IA 21992	5 Belt Press Cake BPC 21992	6 DSE Cake DSE 21992
Metals			
Mercury	<0.020 mg/kg*	0.058 mg/kg*	0.310 mg/kg*
Solids			
Total Solids	99.9 %	32.5 %	58.6 %
Organic			
PCB	<0.3 mg/kg**	<0.3 mg/kg**	<0.03 mg/kg**

*: Analyzed on a dry weight basis.

**: Higher Detectio Limit due to matrix interference.

V.F. Murshak/ma

Violetta F. Murshak
Laboratory Manager

VFM/ajc



Fire & Environmental Consulting Laboratories, Inc.

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Indianapolis (317) 879-0913 FAX (317) 879-0914

April 2, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 8952-92-E1-3

8953-92-E1-3

Samples collected by: R. de los Santos

Analyses requested by: K. Leanin

Date/time samples submitted: 03-12-92 7:52 am

PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 8952-92-E1

Tag: 1 DSE Cake DSE 07092

Container: Glass

Sample type: Solid

Preservation: None

Sampling date: 03-10-92

FECL #: 8952-92-E2

Tag: 2 Incinerator Ash IA 07092

Container: Glass

Sample type: Solid

Preservation: None

Sampling date: 03-10-92

FECL #: 8952-92-E3

Tag: 3 Belt Press Cake EPC 07092

Container: Glass

Sample type: Solid

Preservation: None

Sampling date: 03-10-92

FECL #: 8953-92-E1

Tag: 4 Tertiary Eff. TE 07092

Container: Glass

Sample type: Liquid

Preservation: None

Sampling date: 03-10-92

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8952-92-E1-3 et al
April 2, 1992
Page 2 of 3

FECL #: 8953-92-E2
Tag: 5 Industrial Ash IA 07092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-10-92

FECL #: 8953-92-E3
Tag: 6 Primary Inf. PI 07092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-10-92

Analytical Laboratory Report
City of Kalamazoo
FECL #: 8952-92-E1-3 et al
April 2, 1992
Page 3 of 3

FECL #:	8952-92-E1	8952-92-E2	8952-92-E3
Tag:	1 DSE Cake DSE 07092	2 Incinerator Ash IA 07092	3 Belt Press Cake EPC 07092
Metals			
Mercury	0.406 mg/kg*	<0.020 mg/kg*	0.120 mg/kg*
Solids			
Total Solids	56.1 %	99.9 %	27.4 %
Organic			
PCB	<0.01 mg/kg	<0.01 mg/kg	<1.0 mg/kg**
FECL #:	8953-92-E1	8953-92-E2	8953-92-E3
Tag:	4 Tertiary Eff. TE 07092	5 Industrial <u>WF</u> Ash IA 07092 —	6 Primary Inf. PI 07092
Metals			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic			
PCB	<0.0001 mg/l	<0.01 mg/l**	<0.01 mg/l**

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference.

V.F. Murshak/pn

Violetta F. Murshak
Laboratory Manager

VFM/cqv

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 1 of 5

FECL #: 8952-92-E1
TAG: 1 DSE Cake DSE 07092

Total Solid

Analytical Method: 160.3
Date of Analysis: 3-12-92
Analyst: J. Voronova

Metal/Hg

Preparation Method:	245.1	Analytical Method:	245.1
Date of Preparation:	4-01-92	Date of Analysis:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Size:	100mls/3.39		

PCB

Preparation Method:	3550	Analytical Method:	8080
Date of Preparation:	3-14-92	Date of Analysis:	3-16-92
Analyst:	S. Gliga	Analyst:	D. Edelman
Sample Weight/Vol.:	20.34g		
Dilution Factor:	1.0		

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 2 of 5

FECL #: 8952-92-E2
TAG: 2 Incinerater Ash IA 07092

Total Solid

Analytical Method: 160.3
Date of Analysis: 3-12-92
Analyst: J. Voronova

Metal/Hg

Preparation Method:	245.1	Analytical Method:	245.1
Date of Preparation:	4-01-92	Date of Analysis:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Weight/Vol.:	100mls/2.63g		

PCB

Preparation Method:	3550	Analytical Method:	8080
Date of Preparation:	3-14-92	Date of Analysis:	3-16-92
Analyst:	S. Gliga	Analyst:	D. Edelman
Sample Weight/Vol.:	15.24g		
Dilution Factor:	1.0		

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 3 of 5

FECL #: 8952-92-E3
TAG: 3 Belt Press Cake EPC 07092

Total Solid

Analytical Method: 160.3
Date of Analysis: 3-12-92
Analyst: J. Voronova

Metal/Hg

Preparation Method:	245.1	Analytical Method:	245.1
Date of Preparation:	4-01-92	Date of Analysis:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Weight/Vol.:	100mls/3.46g		

PCB

Preparation Method:	3550	Analytical Method:	8080
Date of Preparation:	3-14-92	Date of Analysis:	3-16-92
Analyst:	S. Gliga	Analyst:	D. Edelman
Sample Weight/Vol.:	20.80g		
Dilution Factor:	100.0		

Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 4 of 5

FECL #: 8953-92-E1
TAG: 4 Tertiary Eff. TE 07092

Metal/Hg

Preparation Method:	245.1	Analytical Method:	245.1
Date of Preparation:	4-01-92	Date of Analysis:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Weight/Vol.:	100mls/100mls		

PCB

Preparation Method:	3510	Analytical Method:	608
Date of Preparation:	3-14-92	Date of Analysis:	3-16-92
Analyst:	S. Gliga	Analyst:	D. Edelman
Sample Weight/Vol.:	550mls		
Dilution Factor:	1.0		

FECL #: 8953-92-E2
TAG: 5 Industrial Ash IA 07092

Metal/Hg

Preparation Method:	245.1	Analytical Method:	245.1
Date of Preparation:	4-01-92	Date of Analysis:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Weight/Vol.:	100mls/100mls		

PCB

Preparation Method:	3510	Analytical Method:	608
Date of Preparation:	3-14-92	Date of Analysis:	3-16-92
Analyst:	S. Gliga	Analyst:	D. Edelman
Sample Weight/Vol.:	500ml		
Dilution Factor:	100.0		


Analytical Support Data
Client: City of Kalamazoo
April 2, 1992
Page 5 of 5

FECL #: 8953-92-E3
TAG: 6 Primary Inf. PI 07092

Metal/Hg

Preparation Method:	245.1	Analytical Method:	245.1
Date of Preparation:	4-01-92	Date of Analysis:	4-01-92
Analyst:	P. Roettger	Analyst:	P. Roettger
Sample Weight/Vol.:	100ml/100mls		
Dilution Factor:			

PCB

Preparation Method:	3510	Analytical Method:	608
Date of Preparation:	3-14-92	Date of Analysis:	3-16-92
Analyst:	S. Gliga	Analyst:	D. Edelman
Sample Weight/Vol.:	500mls		
Dilution Factor:	100.0		

CHAIN OF CUSTODY RECORD

Nº 002912

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS: (Signature)				PURPOSE OF ANALYSIS:		
NUMBER & SIZE OF CONTAINER		D A T E	T I M E	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
7092	8 oz.	3/10/92			✓	Kalamazoo Waste Water
092	8 oz.	3/10/92			/	"
092	8 oz.	3/10/92			/	"
092	1 liter (700ml)	3/10/92			/	"
092	1 liter (700ml)	3/10/92			/	"
092	1 liter (700ml)	3/10/92			/	"
RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)		DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Abel</i>	3/14/92 7:52					
RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)		DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

April 21, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 9128-92-E1-2

Samples collected by: S. Kuilema

Analyses requested by: K. Leanin

Date/time samples submitted: 04-09-92 7:57 am

PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: Landfill Application Assay: PCB & DIOXIN

Samples Collected:

FECL #: 9128-92-E1

Tag: 1 Incinerator

Ash Leachate

INA 07092-L

Container: Amber

Sample type: Liquid

Sampling date/time: 03-10-92

FECL #: 9128-92-E2

Tag: 2 DSE Filter

Press Cake

FPC 07092-L

Container: Amber

Sample type: Liquid

Sampling date/time: 03-10-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 9128-92-E1-2
April 22, 1992
Page 2 of 2

FECL #:	9128-92-E1 1 Incinerator Ash Leachate INA 07092-L	9128-92-E2 2 DSE Filter Press Cake FPC 07092-L
Organic		
PCB	<0.0001 mg/l	<0.0001 mg/l
Dioxin	Negative	Negative

V.F. Murshak, L.C.

Violetta F. Murshak
Laboratory Manager

VFM/a jc

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 9128-92-E1-2

Analyses: PCB

Preparation Method: 3510

Date of Preparation: 4-10-92

Analyst: S. Gliga

Analytical Method: 608

Date of Analyses: 4-13-92

Analyst: D. Edelman

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1_1	Incinerator Ash Leachate INA07092-L	930ml	1.0
E2_2	DSE Filter Press Cake FPC07092-L	1000ml	1.0

Analyses: DIOXIN

Preparation Method: 3510

Date of Preparation: 4-10-92

Analyst: S. Gliga

Analytical Method: 8270

Date of Analyses: 4-20-92

Analyst: M. Carlson

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1_1	Incinerator Ash Leachate INA07092-L	930ml	1.0
E2_2	DSE Filter Press Cake FPC07092-L	1000ml	1.0

CHAIN OF CUSTODY RECORD

Nº 002940

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS:

Landfill application assay : PCB + DIOXIN

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	INCINERATOR ASH LEACHATE	INA 070 92-L	5 - 1 Liter	3/10/92			X	ASTM-A LEACHATE
2	USE FILTER PRESS CAKE	FPC 070 92-L	5 - 1 Liter	3/10/92			X	ASTM-A LEACHATE
LEACHATE PERFORMED IN PUBLIC UTILITIES								
LABORATORY. ANALYZE FOR								
PCB's and DIOXIN.								



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
7160 Graham Rd., Indianapolis, IN 46250 (317) 577-8087 FAX (317) 594-9405

FECL FAX Transmission Report

Time 4-8-92 Date 9:00

TO: Nasim ANSARI FAX NUMBER: 937 - 8699

COMPANY: City of Kalamazoo

NUMBER OF PAGES (Including Cover) 7

MESSAGE

PCB & Hg Results

FROM: Rosanne Ames

FECL FAX NUMBER (517) 332-6333



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6393
Indianapolis (317) 879-0913 FAX (317) 879-0914

April 2, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECI #: 8952-92-K1-3
8953-92-K1-3

Samples collected by: R. de los Santos
Analyzes requested by: K. Leanin
Date/time samples submitted: 03-12-92 7:52 am
PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

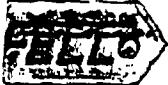
Samples Collected:

FECI #: 8952-92-K1
Tag: 1 DSE Cake DSE 07092
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-10-92

FECI #: 8952-92-K3
Tag: 3 Belt Press Cake EPC 07092
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-10-92

FECI #: 8952-92-K2
Tag: 2 Incinerator Ash IA 07092
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-10-92

FECI #: 8953-92-K1
Tag: 4 Tertiary Eff. TE 07092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-10-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 8952-92-E1-3 et al
April 2, 1992
Page 2 of 3

FECL #: 8953-92-E2
Tag: 5 Industrial Ash IA 07092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-10-92

FECL #: 8953-92-E3
Tag: 6 Primary Inf. PI 07092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-10-92



Analytical Laboratory Report

City of Kalamazoo

FCL #: 8952-92-E1-3 et al

April 2, 1992

Page 3 of 3

FCL #:	8952-92-E1	8952-92-E2	8952-92-E3
Tag:	1 DSE Cake DSE 07092	2 Incinerator Ash 1A 07092	3 Belt Press Cake EPC 07092
Metals			
Mercury	0.406 mg/kg*	<0.020 mg/kg*	0.120 mg/kg*
Solids			
Total Solids	56.1 %	99.9 %	27.4 %
Organic			
PCB	<0.01 mg/kg	<0.01 mg/kg	<1.0 mg/kg**
FCL #:	8953-92-E1	8953-92-E2	8953-92-E3
Tag:	4 Tertiary Eff. TE 07092	5 Industrial Ash 1A 07092	6 Primary Inf. PI 07092
Metals			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic			
PCB	<0.0001 mg/l	<0.01 mg/l**	<0.01 mg/l**

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference.

*V.F. Murshak/PL*Violetta F. Murshak
Laboratory Manager

VFM/oqv



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0814

April 2, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 8901-92-K1-3
8902-92-K1-3

Samples analyzed by: D. Eldman, P. Roettger, J. Voronova

Samples collected by: R. de los Santos

Analyses requested by: K. Leanin

Date/time samples submitted: 03-05-92 7:45 am

PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 8901-92-K1
Tag: 1 Belt Press Cake EPC 08492
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-04-92

FECL #: 8901-92-K2
Tag: 2 DSE Cake DSE 06492
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-04-92

FECL #: 8901-92-K3
Tag: 3 Incinerator Ash II 06492
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 03-04-92

FECL #: 8902-92-K1
Tag: 4 Tertiary Eff. TE 06492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-04-92



Analytical Laboratory Report

City of Kalamazoo

FECL #: 8901-92-E1-3 et al

April 2, 1992

Page 3 of 3

FECL #:

Tag:

Metals

Mercury

8901-92-E1

1 Belt Press
EPC 06492

8901-92-E2

2 DSE Cakes
DSE 06492

8901-92-E3

3 Incinerator Ash
II 06492

Total Solids

32.2 %

55.1 %

99.8 %

Organic

PCB

<5 mg/kg**

<0.01 mg/kg

<0.1 mg/kg**

FECL #:

Tag:

Metals

Mercury

8902-92-E1

4 Tertiary Eff.
TE 06492

8902-92-E2

5 Primary Inf.
PI 06492

8902-92-E3

6 Industrial Inf.
II 06492

Organic

PCB

<0.0001 mg/l

<0.001 mg/l**

<0.01 mg/l**

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference.

V. F. Mureshak, M.A.

Violetta F. Mureshak
Laboratory Manager

VFM/cqv



Analytical Laboratory Report
City of Kalamazoo
FECL #: 8901-92-E1-3 et al
April 2, 1992
Page 2 of 3

FECL #: 8902-92-K2
Tag: 6 Primary Inf. PI 06492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-04-92

FECL #: 8902-92-K3
Tag: 6 Industrial Inf. II 06492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 03-04-92



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

April 20, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 9088-92-E1-3
9089-92-E1-3

Samples collected by: J. Manderfuild
Analyses requested by: K. Leanin
Date/time samples submitted: 04-02-92 7:53 am
PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg & Metals

Samples Collected:

FECL #: 9088-92-E1
Tag: 1 DSE Cake DSE 09292
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 04-01-92 1:30 pm

FECL #: 9088-92-E3
Tag: 3 Belt Press Cake BPC 09292
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 04-01-92 1:30 pm

FECL #: 9088-92-E2
Tag: 2 Incinerator Ash IA 09292
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 04-01-92 1:30 pm

FECL #: 9089-92-E1
Tag: 4 Tertiary Eff. TE 09292
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 04-01-92 3:30 pm

REC'D

Analytical Laboratory Report
City of Kalamazoo
FECL #: 9088-92-E1-3 et al
April 20, 1992
Page 2 of 3

FECL #: 9089-92-E2
Tag: 5 Industrial INF II 09292
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 04-01-92 2:20 pm

FECL #: 9089-92-E3
Tag: 6 Primary Inf. PI 09292
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 04-01-92 2:35 pm



Analytical Laboratory Report
City of Kalamazoo
FECL #: 9088-92-E1-3 et al
April 20, 1992
Page 3 of 3

FECL #:	9088-92-E1	9088-92-E2	9088-92-E3
Tag:	1 DSE Cake DSE 09292	2 Incinerater INF II 09292	3 Belt Press Cake BPC 09292

Metals

Cadmium	5.9 mg/kg*	-----	-----
Chromium	116 mg/kg*	-----	-----
Copper	172 mg/kg*	-----	-----
Lead	86.2 mg/kg*	-----	-----
Mercury	0.200 mg/kg*	<0.020 mg/kg*	0.298 mg/kg*
Nickel	56.3 mg/kg*	-----	-----
Silver	3.4 mg/kg*	-----	-----
Zinc	660 mg/kg*	-----	-----

Solids

Total Solids	55.6 %	99.7 %	28.9 %
--------------	--------	--------	--------

Organic

PCB	<0.01 mg/kg	<0.1 mg/kg**	<1.0 mg/kg**
-----	-------------	--------------	--------------

FECL #:	9089-92-E1	9089-92-E2	9089-92-E3
Tag:	4 Tertiary Eff. TE 09292	5 Industrial INF II 09292	6 Primary Inf. PI 09292

Metals

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.004 mg/l**
-----	--------------	--------------	---------------

*: Analyzed on a dry weight basis

**: Higher Detection Limit due to matrix interference.

Violetta F. Murshak
Laboratory Manager

Analytical Support Data Sheet

Client: City of Kalamazoo

FECL #: 9088-92-E1-3

Analyses: Mercury

Preparation Method: 245.1

Date of Preparation: 4-08-92

Analyst: P. Roettger

Analytical Method:

Date of Analyses: 4-08-92

Analyst: P. Roettger

<u>FECL#:</u>	<u>CLIENT TAG:</u>	<u>SAMPLE SIZE(mls/g)</u>	<u>DILUTION:</u>
E1	DSE Cake DSE 09292	100/2.33g	N/A
E2	Incinerator Ash IA 09292	100/3.78g	N/A
E3	Belt Press Cake BPC 09292	100/4.40g	N/A

Analyses: Total Solids

Preparation Method: N/A

Date of Preparation: N/A

Analyst: N/A

Analytical Method: 160.3

Date of Analyses: 4-02-92

Analyst: J. Voronova

<u>FECL#:</u>	<u>CLIENT TAG:</u>	<u>SAMPLE SIZE(mls/g)</u>	<u>DILUTION:</u>
E1	DSE Cake DSE 09292	N/A	N/A
E2	Incinerator Ash IA 09292	N/A	N/A
E3	Belt Press Cake BPC 09292	N/A	N/A

Analytical Support Data SheetClient: City of KalamazooFECL #: 9089-92-E1-3Analyses: MercuryPreparation Method: 245.1Date of Preparation: 4-08-92Analyst: P. RoettgerAnalytical Method: 245.1Date of Analyses: 4-08-92Analyst: P. Roettger

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1	Tertiary Eff. TE 09292	100/100	N/A
E2	Industrial INF II 09292	100/100	N/A
E3	Primary Inf. PI 09292	100/100	N/A

Analyses: PCBPreparation Method: 3550Date of Preparation: 4-06-92Analyst: S. GligaAnalytical Method: 8080Date of Analyses: 4-09-92Analyst: D. Edelman

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1	DSE Cake DSE 09292	20.35g	1
E2	Incinerator INF II 09292	20.00g	10
E3	Belt Press Cake BPC 09292	15.16g	100

Analyses: PCBPreparation Method: 3510Date of Preparation: 4-03-92Analyst: S. GligaAnalytical Method: 608Date of Analyses: 4-04-92Analyst: D. Edelman

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1	Tertiary Eff. TE 09292	565ml	1
E2	Industrial INF II 09292	800ml	1
E3	Primary Inf. PI 09292	770ml	40

CHAIN OF CUSTODY RECORD

ISE
notular

Nº 002937

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157 (337-8157)

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

Markenweld

PCB ε Hg ε metals

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Paul Mandelblit</i>	4/21/92 7:53 AM	<i>H. Bader</i>	4/21/92 7:53 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send \tilde{y}_k to P for (α_k)



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

April 20, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 9125-92-E1
9126-92-E1-2
9127-92-E1-3

Samples collected by: J. Manderfuill
Analyses requested by: K. Leanin
Date/time samples submitted: 04-09-92 7:57 am
PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg & Metals

Samples Collected:

FECL #: 9125-92-E1
Tag: 1 DSE Cake DSE 09892
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 04-07-92 1:00 pm

FECL #: 9126-92-E2
Tag: 3 Belt Press Cake BPC 09892
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 04-07-92 1:00 pm

FECL #: 9126-92-E1
Tag: 2 INC Ash IA 09892
Container: Glass
Sample type: Solid
Preservation: None
Sampling date: 04-07-92 1:00 pm

FECL #: 9127-92-E1
Tag: 4 Terr Eff. TE 09892
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 04-07-92 1:30 pm

FECL

Analytical Laboratory Report
City of Kalamazoo
FECL #: 9125-92-E1 et al
April 20, 1992
Page 2 of 3

FECL #: 9127-92-E2
Tag: 5 IND Inf II 09892
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 04-07-92 1:36 pm

FECL #: 9127-92-E3
Tag: 6 Pri Inf. PI 09892
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 04-07-92 1:24 pm



Analytical Laboratory Report
City of Kalamazoo
FECL #: 9125-92-E1 et al
April 20, 1992
Page 3 of 3

FECL #:	9125-92-E1	9126-92-E1	9126-92-E2
Tag:	1 DSE Cake DSE 09892	2 INC Ash IA 09892	3 Belt Press Cake BPC 09892
Metals			
Mercury			
	0.211 mg/kg*	<0.020 mg/kg*	0.062 mg/kg*
Solids			
Total Solids	55.5 %	99.9 %	29.6 %
Organic			
PCB	<0.01 mg/kg	<0.01 mg/kg	<1.0 mg/kg**
 FECL #:			
Tag:			
	9127-92-E1 4 Terr Eff. TE 09892	9127-92-E2 5 IND Inf II 09892	9127-92-E3 6 Pri Inf. PI 09892
Metals			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic			
PCB	<0.0002 mg/l**	<0.0002 mg/l**	<0.002 mg/l**

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

A handwritten signature in black ink, appearing to read "V.F. Murshak/ka".

Violetta F. Murshak
Laboratory Manager

VFM/ajc

Analytical Support Data Sheet

Client: City of Kalamazoo

FECL #: 9125-92-E1 9126-92-E1-2

Analyses: Mercury

Preparation Method: 245.1

Date of Preparation: 4-16-92

Analyst: P. Roettger

Analytical Method: 245.1

Date of Analyses: 4-16-92

Analyst: P. Roettger

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1 DSE Cake	DSE 09892	100/3.61g	N/A

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1 INC Ash IA	09892	100/3.77g	N/A
E2 Belt Press Cake	BPC 09892	100/5.43g	N/A

Analyses: Total Solids

Preparation Method: N/A

Date of Preparation: N/A

Analyst: N/A

Analytical Method: 160.3

Date of Analyses: 4-09-92

Analyst: J. Voronova

Analyses: PCB

Preparation Method: 3550

Date of Preparation: 4-10-92

Analyst: S. Gliga

Analytical Method: 8080

Date of Analyses: 4-13-92

Analyst: D. Edelman

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1 DSE Cake	DSE 09892	20.00g	1.0

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1 INC Ash IA	09892	15.01g	1.0
E2 Belt Press Cake	BPC 09892	19.02g	100.0

Analytical Support Data Sheet

Client: City of Kalamazoo

FECL #: 9127-92-E1-3

Analyses: Mercury

Preparation Method: 245.1

Date of Preparation: 4-16-92

Analyst: P. Roettger

Analytical Method: 245.1

Date of Analyses: 4-16-92

Analyst: P. Roettger

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1	Tertiary Eff. TE 09892	100/100	1
E2	Industrial Ash INF II 09892	100/100	1
E3	Primary Inf. PI 09892	100/100	1

Analyses: PCB

Preparation Method: 3510

Date of Preparation: 4-10-92

Analyst: S. Gliga

Analytical Method: 608

Date of Analyses: 4-13-92

Analyst: D. Edelman

FECL#:	CLIENT TAG:	SAMPLE SIZE(mls/g)	DILUTION:
E1	Tertiary Eff. TE 09892	500ml	1.0
E2	Industrial Ash INF II 09892	500ml	1.0
E3	Primary Inf. PI 09892	500ml	1.0

KEN 337-8542

CHAIN OF CUSTODY RECORD

Nº 002939

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

CITY OF KALAMAZOO DEPARTMENT OF PUBLIC UTILITIES 1415 N. Harrison Kalamazoo, Michigan 49007 616-385-8157			SAMPLERS: (Signature)	PURPOSE OF ANALYSIS:					
ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	D A T E	T M E	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS (code, ph, etc., N.A., etc.)	
1	DSE Cate	DSE09892	802	4/7/92	1 ⁰⁰		✓	Kalamazoo Waste Water	Metals
2	INC Ash	IA 09892	807	4/7/92	1 ⁰⁰		✓	Kalamazoo Waste Water	
3	Belt Russel BRC09892		802	4/7/92	1 ⁰⁰		✓	Kalamazoo Waste Water	
4	Terr Eff	TE09892	1 liter	4/7/92	1 ³⁰		✓	Kalamazoo Waste Water	
5	Ind Inf	IF09892	1 liter	4/7/92	1 ³⁴		✓	Kalamazoo Waste Water	
6	PINT	PI09892	1 liter	4/7/92	1 ²⁴		✓	Kalamazoo Waste Water	
1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
Manderfield	4/7/92 7:57 AM	Geoff Dause	4/7/92 7:57 AM						
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
		Anchorage Cabot	4/9/92 12:30 p.m.						
REMARKS: Send results to Ken Leavin									



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

October 7, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 10385-92-E1-2

Samples collected by: M. Knop

Analyses requested by: K. Leanin

Date/time samples submitted: 09-28-92 9:18 am

PO #: 055518

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Dioxin

Samples Collected:

FECL #: 10385-92-E1

Tag: 1 Incinerator

Ash ASTM-A Leachate

INA 13592-L

Container: Amber

Sample type: Liquid

Sampling date/time: 05-14-92

FECL #: 10385-92-E2

Tag: 2 DSE Filter Press Cake

ASTM-A Leachate

FPC 13592-L

Container: Amber

Sample type: Liquid

Sampling date/time: 05-14-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 10385-92-E1-2
October 7, 1992
Page 2 of 2

FECL #:	10385-92-E1 1 Incinerator Ash ASTM-A Leachate INA 13592-L	10385-92-E2 2 DSE Filter Press Cake ASTM-A Leachate FPC 13592-L
Organic		
PCB	<0.0001 mg/l	<0.0001 mg/l
Dioxin	<0.01 mg/l	<0.01 mg/l

A handwritten signature in black ink that appears to read "V.F. Murshak".

Violetta F. Murshak
Laboratory Manager

VFM/aJC



Page 1 of 1

Analytical Support Data Sheet

Client: City of Kalamazoo

FECL #: 10385-92-E1-2

Analyses: PCB

Preparation Method: 3510

Date of Preparation: 9-25-92

Analyst: S. Gliga

Analytical Method: 608

Date of Analyses: 9-26-92

Analyst: S. Kahl

Analyses: DIOXIN

Preparation Method: 3510

Date of Preparation: 9-25-92

Analyst: S. Gliga

Analytical Method: 8270

Date of Analyses: 9-26-92

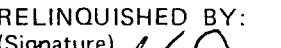
Analyst: M. Carlson

CHAIN OF CUSTODY RECORD

Nº 003021 *

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS: (Signature)	MARTIN KUDR	PURPOSE OF ANALYSIS:	PCB / DIOXIN
--------------------------	-------------	----------------------	--------------

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	9/28/92 A.M.	9:18 PACI	9/28/92 AM			R. Amos	9/28/92 PM 2:29
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS: Report Results to Ken Leanin.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

October 26, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 504-92-E1-3
505-92-E1-3

Samples collected by: R. de los Santos
Analyses requested by: K. Leanin
Date/time samples submitted: 10-08-92 11:54 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 504-92-E1
Tag: 1 Tertiary Eff. TE 28292
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 10-08-92

FECL #: 504-92-E3
Tag: 3 Primary Inf. PI 28292
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 10-08-92

FECL #: 504-92-E2
Tag: 2 Industrial Inf. II 28292
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 10-08-92

FECL #: 505-92-E1
Tag: 4 Belt Press Cake BPC 28292
Container: Glass
Sample type: Ash
Preservation: None
Sampling date: 10-08-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 504-92-E1-3 et al
October 26, 1992
Page 2 of 3

FECL #: 505-92-E2
Tag: 5 Incinerator Ash IA 28292
Container: Glass
Sample type: Ash
Preservation: None
Sampling date: 10-08-92

FECL #: 505-92-E3
Tag: 6 DSE Cake DSE 28292
Container: Glass
Sample type: Ash
Preservation: None
Sampling date: 10-08-92

ANALYTICAL LABORATORY REPORT
City of Kalamazoo
FECL #: 504-92-E1-3 et al
October 26, 1992
Page 3 of 3

FECL #:	504-92-E1	504-92-E2	504-92-E3
Tag:	1 Tertiary Eff. TE 28292	2 Industrial Inf. II 28292	3 Primary Inf. PI 28292

Metals - Method 245.1

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic - Method 8080

PCB	<0.0001 mg/l	<0.0010 mg/l**	<0.0001 mg/l
-----	--------------	----------------	--------------

FECL #:	505-92-E1	505-92-E2	505-92-E3
Tag:	4 Belt Press Cake BPC 28292	5 Incinerator Ash IA 28292	6 DSE Cake DSE 28292

Metals - Method 245.1

Mercury	0.056 mg/kg*	<0.020 mg/kg*	0.302 mg/kg*
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Solids - Method 160.3

Total Solids	28.5 %	99.9 %	39.0 %
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Organic - Method 8080

PCB	<0.33 mg/kg*	<0.33 mg/kg*	<0.33 mg/kg*
-----	--------------	--------------	--------------

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

V.F. Murshak, R.H.

Violetta F. Murshak
Laboratory Manager

VFM/ajc

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 504-92-E1-3 505-92-E1-3

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 10-25-92
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 10-25-92
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 10-08-92
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 10-22-92
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 10-23-92
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 003024

UTILITIES		SAMPLERS: (Signature)				PURPOSE OF ANALYSIS:				
NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER		DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS	
1	TERTIARY Eff.	TE28292	1 liter		10-8-92			✓	Kalamazoo Waste Water	
2	Industrial Ind	II28292	"		"			✓	"	
3	Primary Inf.	PI28292	"		"			✓	"	
4	Belt Press Cake	BPC28292	8 oz.		"			✓	"	
5	Incinerator Ash	IA28292	"		"			✓	"	
6	DSE CAKE	DSE28292	"		"			✓	"	
1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME			
<i>Robert de los Santos</i>	8/8/92 8:09 AM	<i>J. B. C.</i>	10/8/92 8:09 AM							
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME			
<i>J. B. C.</i>	10/8/92 11:54	<i>P. A. M.</i>	10/8/92 11:54							
REMARKS:										
<i>results given to Lab Supervisor</i>										



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

November 24, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 773-92-E1-3
774-92-E1-3

Samples collected by: G. Jones
Analyses requested by: K. Leanin
Date/time samples submitted: 11-05-92 11:40 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 773-92-E1
Tag: 1 TE 31092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 11-05-92 7:00 hrs

FECL #: 773-92-E3
Tag: 3 PI 31092
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 11-05-92 7:00 hrs

FECL #: 773-92-E2
Tag: 2 II 30992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 11-04-92 7:00 hrs

FECL #: 774-92-E1
Tag: 4 BPC 30892
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 11-03-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 773-92-E1-3 et al
November 24, 1992
Page 2 of 3

FECL #: 774-92-E2
Tag: 5 DSE 30892
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 11-03-92

FECL #: 774-92-E3
Tag: 6 IA 30892
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 11-03-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 773-92-E1-3 et al
November 24, 1992
Page 3 of 3

	11-5-92	11-4-92	11-8-92
FECL #:	773-92-E1	773-92-E2	773-92-E3
Tag:	1 TE 31092	2 II 30992	3 PI 31092

Metals - Method 245.1

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic - Method 8080

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.001mg/l**
-----	--------------	--------------	--------------

	11-3-92	11-3-92	11-3-92
FECL #:	774-92-E1	774-92-E2	774-92-E3
Tag:	4 EPC 30892	5 DSE 30892	6 IA 30892

Metals - Method 245.1

Mercury	0.057 mg/kg*	0.226 mg/kg*	<0.020mg/kg*
---------	--------------	--------------	--------------

Solids - Method 160.3

Total Solids	24.4 %	57.2 %	100 %
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Organic - Method 8080

PCB	<0.48 mg/kg**	<0.33 mg/kg*	<0.48mg/kg**
-----	---------------	--------------	--------------

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

A handwritten signature in black ink, appearing to read "V.F. Murshak, P.E." followed by a date.

Violetta F. Murshak
Laboratory Manager

VFM/ajc



Page 1 of 1

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 773-92-E1-3 774-92-E1-3

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 11-13-92
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 11-23-92
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 11-05-92
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 11-09-92
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 11-10-92
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 003035

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature) *Gwen Jones*

PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature) <i>K Messenger</i>	DATE/TIME 11/5/92 8:05 AM	RECEIVED BY: (Signature)	DATE/TIME 11/5/92 8:05 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature) <i>JB</i>	DATE/TIME 11/5/92 11:40 AM	RECEIVED BY: (Signature)	DATE/TIME 11/5/92 11:40 AM	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr , Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

November 24, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 823-92-E1-3
824-92-E1-3

Samples collected by: G. Jones
Analyses requested by: K. Leanin
Date/time samples submitted: 11-12-92 11:42 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 823-92-E1
Tag: 1 TE 31492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 11-09-92 10:00 am

FECL #: 823-92-E3
Tag: 3 II 31492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 11-09-92 10:00 am

FECL #: 823-92-E2
Tag: 2 PI 31492
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 11-09-92 10:00 am

FECL #: 824-92-E1
Tag: 4 BPC 31292
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 11-12-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 823-92-E1-3 et al
November 24, 1992
Page 2 of 3

FECL #: 824-92-E2
Tag: 5 DSE 31292
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 11-12-92

FECL #: 824-92-E3
Tag: 6 INA 31292
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 11-12-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 823-92-E1-3 et al
November 24, 1992
Page 3 of 3

FECL #:	823-92-E1	823-92-E2	823-92-E3
Tag:	1 TE 31492	2 PI 31492	3 II 31492
Metals - Method 245.1			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic - Method 8080			
PCB	<0.0001 mg/l	<0.0001 mg/l	<0.0001 mg/l
FECL #:	824-92-E1	824-92-E2	824-92-E3
Tag:	4 BPC 31292	5 DSE 31292	6 INA 31292
Metals - Method 245.1			
Mercury	0.075 mg/kg*	0.283 mg/kg*	<0.020 mg/kg*
Solids - Method 160.3			
Total Solids	19.4 %	56.8 %	99.9 %
Organic - Method 8080			
PCB	<0.50 mg/kg**	<0.33 mg/kg*	<0.33 mg/kg*

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

A handwritten signature in black ink, appearing to read "V.F. Murshak, P.E." or similar initials.

Violetta F. Murshak
Laboratory Manager

VFM/ajc



Page 1 of 1

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 823-92-E1-3 824-92-E1-3

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 11-23-92
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 11-23-92
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 11-12-92
Analyst: J. Voronova

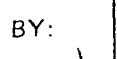
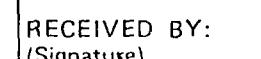
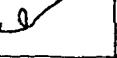
Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 11-09-92
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 11-10-92
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 003037

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)	Gwen Jones	PURPOSE OF ANALYSIS:
		PCB + Hg

1 RELINQUISHED BY: (Signature) 	DATE/TIME 11/12/92 8:13 AM	RECEIVED BY: (Signature) 	DATE/TIME 11/12/92 8:13 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature) 	DATE/TIME 11/12/92 11:42 AM	RECEIVED BY: (Signature) 	DATE/TIME 11/12/92 11:42	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send results to Ken Leanin

CHAIN OF CUSTODY RECORD

Nº 003040

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

1 RELINQUISHED BY: (Signature) <i>JFBrayff</i>	DATE/TIME 12/3/92 9:28 AM	RECEIVED BY: (Signature) <i>JKB</i>	DATE/TIME 12/3/92 9:18 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send results to Kipp Leann

CHAIN OF CUSTODY RECORD

Nº 003041

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

December 10, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 859-92-E1-2
Samples collected by: M. Knop
Analyses requested by: K. Leanin
Date/time samples submitted: 11-17-92 9:57 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB/DIOXIN

Samples Collected:

FECL #: 859-92-E1
Tag: 1 Incinerator Ash Leachate
INA 32192-L
Container: Liter
Sample type: Liquid
Preservative: None
Sampling date/time: 11-06-92

FECL #: 859-92-E2
Tag: 2 DSE Filter Press Cake Leachate
FPC 32192-L
Container: Liter
Sample type: Liquid
Preservative: None
Sampling date/time: 11-06-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 859-92-E1-2
December 10, 1992
Page 2 of 2

FECL #:	859-92-E1	859-92-E2
Tag:	1 Incinerator Ash Leachate INA 32192-L	2 DSE Filter Press Cake Leachate FPC 32192-L

Organics - Method 8080/8270

PCB	<0.0001 mg/l	<0.0001 mg/l
DIOXIN	<0.01 mg/l	<0.01 mg/l

A handwritten signature in black ink, appearing to read "V.F. Murshak, P.E."

Violetta F. Murshak
Laboratory Manager

VFM/ajc



Page 1 of 1

Analytical Support Data Sheet

Client: City of Kalamazoo

FECL #: 859-92-E1-2

Analyses: PCB

Preparation Method: 3510

Date of Preparation: 11-18-92

Analyst: S. Gliga

Analytical Method: 8080

Date of Analyses: 11-19-92

Analyst: S. Kahl

Analyses: DIOXIN

Preparation Method: 3510

Date of Preparation: 11-18-92

Analyst: S. Gliga

Analytical Method: 8270

Date of Analyses: 12-09-92

Analyst: M. Carlson

CHAIN OF CUSTODY RECORD

Nº 003038

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS
(Signature)

Marty Knopf

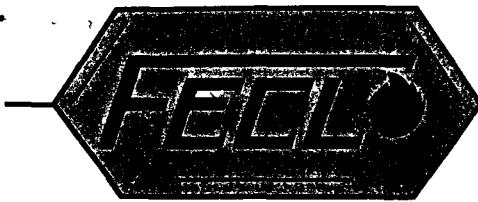
PURPOSE OF ANALYSIS:

PC8/010x1n

1 RELINQUISHED BY: (Signature) <i>KMessenger</i>	DATE/TIME 11/17/92 9:57 AM	RECEIVED BY: (Signature) <i>Paul Goenger</i>	DATE/TIME 11/17/92 9:57 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

REMARKS:
Report Results to Ken Leamin.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

December 22, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 960-92-E1-3
961-92-E1-3

Samples collected by: G. Jones
Analyses requested by: K. Leanin
Date/time samples submitted: 12-03-92 13:34 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 960-92-E1
Tag: 1 TE 33792
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 12-02-92 2:40 pm

FECL #: 960-92-E3
Tag: 3 PI 33792
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 12-02-92 2:40 am

FECL #: 960-92-E2
Tag: 2 II 33792
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 12-02-92 2:40 am

FECL #: 961-92-E1
Tag: 4 BPC 33692
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 12-01-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 960-92-E1-3 et al
December 22, 1992
Page 2 of 3

FECL #: 961-92-E2
Tag: 5 DSE 33692
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 12-01-92

FECL #: 961-92-E3
Tag: 6 IA 33692
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 12-01-92



Analytical Laboratory Report
City of Kalamazoo
FECL #: 960-92-E1-3 et al
December 22, 1992
Page 3 of 3

FECL #:	960-92-E1	960-92-E2	960-92-E3
Tag:	1 TE 33792	2 II 33792	3 PI 33792

Metals - Method 245.1

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic - Method 8080

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.0001 mg/l
-----	--------------	--------------	--------------

FECL #:	961-92-E1	961-92-E2	961-92-E3
Tag:	4 BPC 33692	5 DSE 33692	6 IA 33692

Metals - Method 245.1

Mercury	0.011 mg/kg*	0.173 mg/kg*	<0.020 mg/kg*
---------	--------------	--------------	---------------

Solids - Method 160.3

Total Solids	40.2 %	57.0 %	100 %
--------------	--------	--------	-------

Organic - Method 8080

PCB	<0.49 mg/kg**	<0.33 mg/kg*	<0.33 mg/kg*
-----	---------------	--------------	--------------

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

A handwritten signature in black ink, appearing to read "V.F. Murshak/92".

Violetta F. Murshak
Laboratory Manager

VFM/ajc



Page 1 of 1

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 960-92-E1-3 961-92-E1-3

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 12-22-92
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 12-22-92
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 12-03-92
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 12-07-92
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 12-08-92
Analyst: S. Kahl

PINE & ENVIRONMENTAL CONSULTING
LABORATORIES, INCORPORATED
P.O. Box 992
East Lansing, MI, 48823

Phone: (517) 332-0167

INVOICE	DATE	NUMBER
	12/22/92	960-92-R1-3
		961-92-R1-3

Federal Tax Number: 38-2690076

Invoice To:

Attention: Financing 960;961

Report Sent To:

City of Kalamazoo
241 W. South Street
Kalamazoo, MI 49007

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanan

Purchase Order #: 056756
C.O.C. #: 003040

Project: PCB & Hg

6 Samples For:

PCB & Hg @ \$60.00/ea. \$ 360.00

TOTAL INVOICE: \$ 360.00

Terms: Net 30 deld

Thank you for using our laboratory! If any questions arise, please call.

PLEASE RETURN YELLOW COPY OF INVOICE WITH PAYMENT. THANK YOU. *V.F. Murchak/APP*

CV

CHAIN OF CUSTODY RECORD

Nº 003040

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS:
(Signature)

Ewen Jones

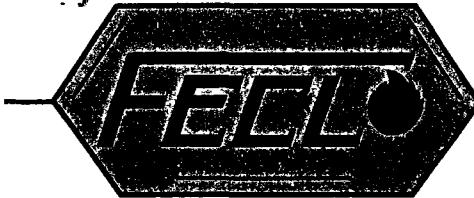
PURPOSE OF ANALYSIS:

PCB + Hg

1 RELINQUISHED BY: (Signature) <i>J.P. Raap</i>	DATE/TIME 12/3/92 9:28 AM	RECEIVED BY: (Signature) <i>M. Boe</i>	DATE/TIME 12/3/92 9:28 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature) <i>M. Boe</i>	DATE/TIME 12/3/92 13:34	RECEIVED BY: (Signature) <i>L. Dyer</i>	DATE/TIME 12/3/92 13:34	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

December 24, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 982-92-E1-3
983-92-E1-3

Samples collected by: G. Jones
Analyses requested by: K. Leanin
Date/time samples submitted: 12-07-92 2:50 pm
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: 982-92-E1
Tag: 1 TE 33992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 12-04-92 2:30 am

FECL #: 982-92-E2
Tag: 2 PI 33992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 12-04-92 2:30 am

FECL #: 982-92-E3
Tag: 3 II 33992
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 12-04-92 2:30 am

FECL #: 983-92-E1
Tag: 4 BPC 33892
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 12-03-92

FECL

Analytical Laboratory Report
City of Kalamazoo
FECL #: 982-92-E1-3 et al
December 24, 1992
Page 2 of 3

FECL #: 983-92-E2
Tag: 5 DSE 33892
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 12-03-92

FECL #: 983-92-E3
Tag: 6 IA 33892
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 12-03-92

FECL
Analytical Laboratory Report
City of Kalamazoo
FECL #: 982-92-E1-3 et al
December 24, 1992
Page 3 of 3

FECL #:	982-92-E1	982-92-E2	982-92-E3
Tag:	1 TE 33992	2 PI 33992	3 II 33992

Metals - Method 245.1

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
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Organic - Method 8080

PCB	<0.0001 mg/l	<0.0001 mg/l	<0.025 mg/l**
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FECL #:	983-92-E1	983-92-E2	983-92-E3
Tag:	4 BPC 33892	5 DSE 33892	6 INA 33892

Metals - Method 245.1

Mercury	0.014 mg/kg*	0.112 mg/kg*	<0.020 mg/kg*
---------	--------------	--------------	---------------

Solids - Method 160.3

Total Solids	30.0 %	56.4 %	99.9 %
--------------	--------	--------	--------

Organic - Method 8080

PCB	<9.0 mg/kg**	<0.33 mg/kg*	<0.33 mg/kg*
-----	--------------	--------------	--------------

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

V.F. Murshak, Jr.

Violetta F. Murshak
Laboratory Manager

VFM/ajc

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 982-92-E1-3 983-92-E1-3

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 12-10-92
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 12-10-92
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 12-07-92
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 12-21-92
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 12-22-92
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 00304

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS:
(Signature)

J. Jones

PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>John Jones</i>	12/1/92 9:46	<i>Paul Goerges</i>	12/1/92 9:46 AM			<i>R. Bauer</i>	12/1/92 2:50 PM
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send results to Ken Leinen



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 879-0913 FAX (317) 879-0914

November 19, 1992

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: 775-92-E1-2

Samples collected by: M. Knop

Analyses requested by: K. Leanin

Date/time samples submitted: 09-30-92

PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB/Dioxin Analysis

Samples Collected:

FECL #: 775-92-E1

Tag: 1 DSE Filter Press Cake Leachate
FPC 27492-L

Container: Liter

Sample type: Liquid

Preservative: None

Sampling date/time: 09-30-92

FECL #: 775-92-E2

Tag: 2 Incinerator Ash Leachate
INA 27492-L

Container: Liter

Sample type: Liquid

Preservative: None

Sampling date/time: 09-30-92



Analytical Laboratory Report

City of Kalamazoo

FECL #: 775-92-E1-2

November 19, 1992

Page 2 of 2

FECL #:

775-92-E1

775-92-E2

Tag:

1 DSE Filter

2 Incinerator

Press Cake

Ash Leachate

Leachate

INA 27492-L

FPC 274922

Organics

PCB

<0.0001 mg/l

<0.0001 mg/l

Dioxin

<0.01 mg/l

<0.01 mg/l

V.F. Murshak (ERVN)

Violetta F. Murshak
Laboratory Manager

VFM/ajc



Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: 775-92-E1-2

Analyses: PCB
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 608
Date of Analyses: 11-09-92
Analyst: S. Kahl

Analyses: Dioxin
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 8270
Date of Analyses: 11-19-92
Analyst: M. Carlson

CHAIN OF CUSTODY RECORD

Nº 00

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS
(Signature)

RS:
e) Mart Knop
MART KNOP

PURPOSE OF ANALYSIS

PCB/DIOXIN ANALYSIS

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS				
1	DSE FILTER PRESS CAKE LEACHATE	FPC 274 92-L	4 - 1 liter	9/30/92			✓	ASTM-A LEACHATE				
2	Incinerator Ash Leachate	JNA 274 92-L	4 - 1 liter	9/30/92			✓	"	"	"		
1	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME			
	Mart King	11/5/92 8:08 AM	J. Bahr	11/5/92 8:08 AM								
2	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME			
	J. Bahr	11/5/92 11:10 AM	R. Jones	11/5/92 11:40								
REMARKS:	Report Results to Ken Learin. Run PCB + Dioxin.					Fast Sublevo Time						



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

January 31, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB/DIOXIN

Samples collected by: M. KNOP
Date/Time Submitted: 01/24/94 13:30
PO #: 056756

FECL #: AA11669
Tag: 1 INA 34993-L
Date/Time Collected:
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration

FECL #: AA11670
Tag: 2 FPC 34993-L
Date/Time Collected:
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
January 31, 1994

FECL #: AA11669
TAG: 1 INA 34993-L

Analysis	Results	Units	MDL	Method	Date
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	01/31/94
Dioxin	Not detected	mg/l	0.01	625M	01/25/94

FECL #: AA11670
TAG: 2 FPC 34993-L

Analysis	Results	Units	MDL	Method	Date
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	01/31/94
Dioxin	Not detected	mg/l	0.01	625M	01/25/94

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.

Violetta F. Murshak
Laboratory Director

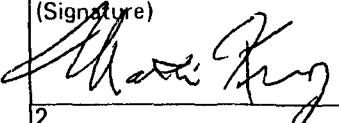
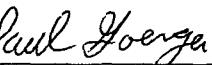
CHAIN OF CUSTODY RECORD

Nº 002622

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)	Martin Knop MARTIN KNOP	PURPOSE OF ANALYSIS: PCB/DOXIN
--------------------------	----------------------------	-----------------------------------

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	CMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
11669	INA 349 93-L		4-1 LITER				✓	INCINERATOR ASH LEACHATE (ASTM-A)
11670	FPC 349 91-L		4-1 LITER				✓	OSE FILTER PRESS CAKE (LEACHATE (ASTM-
ASTM LEACHATE PERFORMED IN KALAMAZOO UTILITIES TRACE METALS LAB BY Mr. Knop.								

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	1/24/94 10:25 AM	Paul Goerga	1/24/94 10:25 AM		1/24/94		
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

REPORT RESULTS TO KEN LEAVIN.



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

February 2, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: AA00218 thru AA00223
Samples collected by: L. Gould
Analyses requested by: K. Leanin
Date/time samples submitted: 01-14-93 9:27 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: AA00218
Tag: 1 TE 01393
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 01-13-93 7:00 am

FECL #: AA00219
Tag: 2 II 01393
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 01-13-93 7:00 am

FECL #: AA00220
Tag: 3 PI 01393
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 01-13-93 7:00 am

FECL #: AA00221
Tag: 4 BPC 01293
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 01-12-93

Analytical Laboratory Report
City of Kalamazoo
FECL #: AA00218 thru AA00223
February 2, 1993
Page 2 of 3

FECL #: AA00222
Tag: 5 DSE 01293
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 01-12-93

FECL #: AA00223
Tag: 6 IA 01293
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 01-12-93

ANALYTICAL LABORATORY REPORT
City of Kalamazoo
FECL #: AA00218 thru AA00223
February 2, 1993
Page 3 of 3

FECL #:	AA00218	AA00219	AA00220
Tag:	1 TE 01393	2 II 01393	3 PI 01393
Metals - Method 245.1			
Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
Organic - Method 608			
PCB	<0.0001 mg/l	<0.01 mg/l**	<0.0001 mg/l
FECL #:	AA00221	AA00222	AA00223
Tag:	4 BPC 01293	5 DSE 01293	6 INA 01293
Metals - Method 245.1			
Mercury	0.048 mg/kg*	0.948 mg/kg*	<0.020 mg/kg*
Solids - Method 160.3			
Total Solids	29.3 %	59.4 %	99.8 %
Organic - Method 8080			
PCB	<0.3 mg/kg*	<0.3 mg/kg*	<0.3 mg/kg*

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

V.F. Murshak (ECVN)
Violetta F. Murshak
Laboratory Manager

VFM/ajc

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: AA00218 thru AA00223

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 01-14-93
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 01-14-93
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 01-14-93
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 01-17-93
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 01-19-93
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

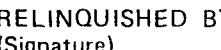
Nº 003062

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature) *Lisa Gould*

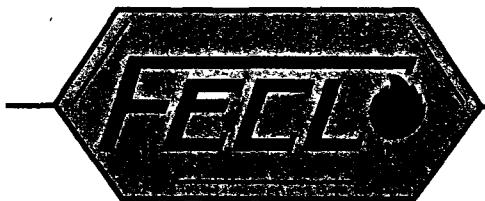
PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	4/1 93	9:27 AM		4/1 93	9:27 AM		
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	4/1 93	10:00 PM	,				

REMARKS:

Please Send results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
Indianapolis (317) 577-8087 FAX (317) 594-9406

February 2, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

FECL #: AA00117 thru AA00122
Samples collected by: L. Gould
Analyses requested by: K. Leanin
Date/time samples submitted: 01-11-93 9:50 am
PO #: 056756

Submitting Company: City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Project Description: PCB & Hg

Samples Collected:

FECL #: AA00117
Tag: 1 TE 00893
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 01-08-93 8:00 am

FECL #: AA00119
Tag: 3 PI 00893
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 01-08-93 8:00 am

FECL #: AA00118
Tag: 2 II 00893
Container: Glass
Sample type: Liquid
Preservation: None
Sampling date: 01-08-93 8:00 am

FECL #: AA00120
Tag: 4 BPC 00793
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 01-07-93


Analytical Laboratory Report
City of Kalamazoo
FECL #: AA00117 thru AA00122
February 2, 1993
Page 2 of 3

FECL #: AA00121
Tag: 5 DSE 00793
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 01-07-93

FECL #: AA00122
Tag: 6 IA 00793
Container: Glass
Sample type: Solids
Preservation: None
Sampling date: 01-07-93

Analystical Laboratory Report
City of Kalamazoo
FECL #: AA00117 thru AA00122
February 3, 1993
Page 3 of 3

FECL #:	AA00117	AA00118	Aa00119
Tag:	1 TE 00893	2 II 00893	3 PI 00893

Metals - Method 245.1

Mercury	<0.0005 mg/l	<0.0005 mg/l	<0.0005 mg/l
---------	--------------	--------------	--------------

Organic - Method 608

PCB	0.0013 mg/l	<0.001 mg/l**	<0.0001 mg/l
-----	-------------	---------------	--------------

FECL #:	AA00120	AA00121	AA00122
Tag:	4 BPC 00793	5 DSE 00793	6 IA 00793

Metals - Method 245.1

Mercury	0.047 mg/kg*	0.211 mg/kg*	<0.020 mg/kg*
---------	--------------	--------------	---------------

Solids - Method 160.3

Total Solids	27.5 %	55.9 %	100 %
--------------	--------	--------	-------

Organic - Method 8080

PCB	<0.3 mg/kg*	<0.3 mg/kg*	<0.3 mg/kg*
-----	-------------	-------------	-------------

*: Analyzed on a dry weight basis.

**: Higher Detection Limit due to matrix interference.

5/7 332-0167

collected 8/15, Feb 10, rest.

Rerun sample - 0130

V. F. Murshak (LGM)

Violetta F. Murshak
Laboratory Manager

VFM/ajc

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: AA00117 thru AA00122

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 01-29-93
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 01-29-93
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 01-11-93
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 01-13-93
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 01-14-93
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 003057

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature) Lisa Gould

PURPOSE OF ANALYSIS:

PCB and Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
K/Messenger	11/93 9:50 AM	Paul Goeyen	11/93 9:50 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Please send results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-0167 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 1, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: L. GOULD
Date/Time Submitted: 02/04/93 12:35
PO #: 056756

FECL #: AA00894

Tag: 1 TE03493 Tertiary Eff.
Date/Time Collected: 02/03/93 07:00
Matrix: Liquid
Container(s): 1-Liter Glass Jar
Preservation: None/Refrigeration

FECL #: AA00895

Tag: 2 PI03493 Industrial Inf.
Date/Time Collected: 02/03/93 07:00
Matrix: Liquid
Container(s): 1-Liter Glass Jar
Preservation: None/Refrigeration

FECL #: AA00896

Tag: 3 PI03493 Primary Inf.
Date/Time Collected: 02/03/93 07:00
Matrix: Liquid
Container(s): 1-Liter Glass Jar
Preservation: None/Refrigeration

FECL #: AA00897

Tag: 4 BPC03493 Belt Press Cake

Date/Time Collected: 02/03/93

Matrix: Press Cake

Container(s): 8 oz. Jar

Preservation: None/Refrigeration

FECL #: AA00898

Tag: 5 IA03493 Incinerator Ash

Date/Time Collected: 02/03/93

Matrix: Ash

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA00899

Tag: 6 DSE03393 DSE Press Cake

Date/Time Collected: 02/03/93

Matrix: Press Cake

Container(s): 8 oz. Jar

Preservation: None/Refrigeration

FECL #: AA00894
Tag: 1 TE03493 Tertiary Eff.

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA00895
Tag: 2 II03493 Industrial Inf.

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608



FECL

FECL #: AA00896
Tag: 3 PI03493 Primary Inf.

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608



FECL

FECL #: AA00897
Tag: 4 BPC03493 Belt Press Cake

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	30.5	%	1	160.3
METALS				
Mercury	0.023	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080



FECL #: AA00898
Tag: 5 IA03493 Incinerator Ash

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	99.9	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080



FECL

FECL #: AA00899
Tag: 6 DSE03393 DSE Press Cake

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	54.7	%	1	160.3
METALS				
Mercury	0.098	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: AA00894 thru AA00899

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 02-19-93
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 02-19-93
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 02-04-93
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 02-16-93
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 02-17-93
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 003065 :

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature) Lisa Gould

PURPOSE OF ANALYSIS:

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
X Kathy Messenger.	2/4/93 10 AM	JFK	2/4/93 10 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
X J. G.	2/4/93 12:35 PM	Paul Givens	2/4/93 12:35 PM				

REMARKS:

Please Send Results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-0167 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 1, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: L. GOULD
Date/Time Submitted: 02/04/93 12:35
PO #: 056756

FECL #: AA00894
Tag: 1 TE03493 Tertiary Eff.
Date/Time Collected: 02/03/93 07:00
Matrix: Liquid
Container(s): 1-Liter Glass Jar
Preservation: None/Refrigeration

FECL #: AA00895
Tag: 2 PI03493 Industrial Inf.
Date/Time Collected: 02/03/93 07:00
Matrix: Liquid
Container(s): 1-Liter Glass Jar
Preservation: None/Refrigeration

FECL #: AA00896
Tag: 3 PI03493 Primary Inf.
Date/Time Collected: 02/03/93 07:00
Matrix: Liquid
Container(s): 1-Liter Glass Jar
Preservation: None/Refrigeration



FECL #: AA00897

Tag: 4 BPC03493 Belt Press Cake

Date/Time Collected: 02/03/93

Matrix: Press Cake

Container(s): 8 oz. Jar

Preservation: None/Refrigeration

FECL #: AA00898

Tag: 5 IA03493 Incinerator Ash

Date/Time Collected: 02/03/93

Matrix: Ash

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA00899

Tag: 6 DSE03393 DSE Press Cake

Date/Time Collected: 02/03/93

Matrix: Press Cake

Container(s): 8 oz. Jar

Preservation: None/Refrigeration



FECL #: AA00894
Tag: 1 TE03493 Tertiary Eff.

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608



FECL #: AA00895
Tag: 2 H03493 Industrial Inf.

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608



FECL #: AA00896
Tag: 3 PI03493 Primary Inf.

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608



FECL #: AA00897
Tag: 4 BPC03493 Belt Press Cake

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	30.5	%	1	160.3
METALS				
Mercury	0.023	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080



FECL #: AA00898
Tag: 5 IA03493 Incinerator Ash

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	99.9	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080



FECL #: AA00899

Tag: 6 DSE03393 DSE Press Cake

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	54.7	%	1	160.3
METALS				
Mercury	0.098	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

Note: Methods may be modified for improved performance.

A handwritten signature in black ink, appearing to read "V.F. Murshak".

Violetta F. Murshak
Laboratory Manager



Page 1 of 1

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: AA00894 thru AA00899

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 02-19-93
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 02-19-93
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 02-04-93
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 02-16-93
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 02-17-93
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

Nº 003065-

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS: (Signature) Lisa Gould	PURPOSE OF ANALYSIS: PCB + Hg
-------------------------------------	----------------------------------

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
X Kathy Messinger	2/4/93 10 AM	JFK	2/4/93 10 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
X J. G.	2/4/93 12:35 PM	Paul Givens	2/4/93 12:35 PM				

REMARKS:

Please Send Results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-0167 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 1, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: L. GOULD
Date/Time Submitted: 02/08/93 09:22
PO #: 056756

FECL #: AA01058

Tag: 1 IA03593 Incinerator Ash
Date/Time Collected: 02/04/93
Matrix: Ash
Container(s): 8 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA01059

Tag: 2 DSE03593 DSE Cake
Date/Time Collected: 02/04/93
Matrix: Press Cake
Container(s): 8 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA01060

Tag: 3 BPC03593 Belt Press Cake
Date/Time Collected: 02/04/93
Matrix: Press Cake
Container(s): 8 oz Glass Jar
Preservation: None/Refrigeration

FECL #: AA01061

Tag: 4 TE03993 Tertiary Effluent

Date/Time Collected: 02/08/93 07:00

Matrix: Liquid

Container(s): 1 Liter Glass Jar

Preservation: None/Refrigeration

FECL #: AA01062

Tag: 5 II03993 Industrial Influent

Date/Time Collected: 02/08/93 07:00

Matrix: Liquid

Container(s): 1 Liter Glass Jar

Preservation: None/Refrigeration

FECL #: AA01063

Tag: 6 PI03993 Primary Influent

Date/Time Collected: 02/08/93 07:00

Matrix: Liquid

Container(s): 1 Liter Glass Jar

Preservation: None/Refrigeration

FECL #: AA01058
Tag: 1 IA03593 Incinerator Ash

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01059
Tag: 2 DSE03593 DSE Cake

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	0.159	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01060
Tag: 3 BPC03593 Belt Press Cake

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	0.031	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01061
Tag: 4 TE03993 Tertiary Effluent

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	200.8
ORGANICS PCB	Not detected	mg/l	0.0001	608



FECL #: AA01062
Tag: 5 II03993 Industrial Influent

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	200.8
ORGANICS PCB	Not detected	mg/l	0.001	608

FECL #: AA01063
Tag: 6 PI03993 Primary Influent

Analytical Laboratory Report
City of Kalamazoo
March 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	200.8
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Note: Methods may be modified for improved performance.

V.F. Murshak, L.S.

Violetta F. Murshak
Laboratory Manager

Analytical Support Data Sheet

Client: City of Kalamazoo
FECL #: AA01058 thru AA01063

Analyses: Mercury
Preparation Method: 245.1
Date of Preparation: 02-19-93
Analyst: P. Roettger
Analytical Method: 245.1
Date of Analyses: 02-19-93
Analyst: P. Roettger

Analyses: Total Solids
Preparation Method: N/A
Date of Preparation: N/A
Analyst: N/A
Analytical Method: 160.3
Date of Analyses: 02-08-93
Analyst: J. Voronova

Analyses: PCB
Preparation Method: 3510/3550
Date of Preparation: 02-17-93
Analyst: S. Gliga
Analytical Method: 608/8080
Date of Analyses: 02-18-93
Analyst: S. Kahl

CHAIN OF CUSTODY RECORD

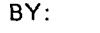
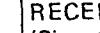
Nº 003072-

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS:
(Signature) Lisa Gould

PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	2/8/13	9:22		2/8/13	9:22 10:14		
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

April 1, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg; 1 Napthalene Sample

Samples collected by: P. MANDERFIELD
Date/Time Submitted: 03/04/93 13:13
PO #: 056756

FECL #: AA01475

Tag: 1 TE06293
Date/Time Collected: 03/03/93 07:00
Matrix: Wastewater
Container(s): 1 Amber Liter
Preservation: None/Refrigeration

FECL #: AA01476

Tag: 2 PI06293
Date/Time Collected: 03/03/93 07:00
Matrix: Wastewater
Container(s): 1 Amber Liter
Preservation: None/Refrigeration

FECL #: AA01477

Tag: 3 II06293
Date/Time Collected: 03/03/93 07:00
Matrix: Wastewater
Container(s): 1 Amber Liter
Preservation: None/Refrigeration

FECL #: AA01478

Tag: 4 BPC06293

Date/Time Collected: 03/03/93 09:00

Matrix: Belt Press Cake

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA01479

Tag: 5 DSE06193

Date/Time Collected: 03/02/93

Matrix: DSE Cake

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA01480

Tag: 6 TE06393

Date/Time Collected: 03/04/93

Matrix: Wastewater

Container(s): 1 Amber Liter

Preservation: None/Refrigeration

FECL #: AA01475

Tag: 1 TE06293

Analytical Laboratory Report
City of Kalamazoo
April 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	<i>N.D.</i> No Sample	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

FECL #: AA01476

Tag: 2 PI06293

Analytical Laboratory Report
City of Kalamazoo
April 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	No Sample	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

FECL #: AA01477

Tag: 3 II06293

Analytical Laboratory Report
City of Kalamazoo
April 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	No Sample	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

FECL #: AA01478

Tag: 4 BPC06293

Analytical Laboratory Report
City of Kalamazoo
April 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	40.7	%	1	160.3
METALS				
Mercury	0.032	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01479

Tag: 5 DSE06193

Analytical Laboratory Report
City of Kalamazoo
April 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	57.4	%	1	160.3
METALS				
Mercury	0.220	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01480

Tag: 6 TE06393

Analytical Laboratory Report
City of Kalamazoo
April 1, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS Naphthalene	Not detected	mg/l	0.01	8310

Note: Methods may be modified for improved performance.

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 003080

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

Penny Manderfield

PURPOSE OF ANALYSIS:

PCB + Hg , 1 Napthalene sample

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Messenger	3/4/93 9:02 AM	JB	3/4/93 9:02 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
AB	3/4/93 1:13 PM	Paul Joseph	3/4/93 1:13 PM				

REMARKS:

Send Results to Ken Leanim



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 31, 1993

City of Kalamazoo, WWTP
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: L. GOULD
Date/Time Submitted: 03/11/93 14:43
PO #: 056756

FECL #: AA01621

Tag: 1 BPC06793 Belt Press Cake
Date/Time Collected: 03/08/93
Matrix: Press Cake
Container(s): 8 oz. Glass Jar
Preservation: None/Refrigeration

FECL #: AA01622

Tag: 2 DSE06793 DSE Cake
Date/Time Collected: 03/08/93
Matrix: DSE Cake
Container(s): 8 oz. Glass Jar
Preservation: None/Refrigeration

FECL #: AA01623

Tag: 3 IA06793 Incinerator Ash
Date/Time Collected: 03/08/93
Matrix: Ash
Container(s): 8 oz. Glass Jar
Preservation: None/Refrigeration

FECL #: AA01624

Tag: 4 IA06893 Incinerator Ash

Date/Time Collected: 03/09/93

Matrix: Ash

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA01625

Tag: 5 TE07093 Tertiary Effluent

Date/Time Collected: 03/11/93 07:00

Matrix: Wastewater

Container(s): Amber Liter

Preservation: None/Refrigeration

FECL #: AA01626

Tag: 6 PI07093 Primary Influent

Date/Time Collected: 03/11/93 07:00

Matrix: Wastewater

Container(s): Amber Liter

Preservation: None/Refrigeration

FECL #: AA01627

Tag: 7 II07093 Industrial Influent

Date/Time Collected: 03/11/93 07:00

Matrix: Wastewater

Container(s): Amber Liter

Preservation: None/Refrigeration

FECL #: AA01621
Tag: 1 BPC06793 Belt Press Cake

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	33.8	%	1	160.3
METALS				
Mercury	0.026	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01622
Tag: 2 DSE06793 DSE Cake

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	58.3	%	1	160.3
METALS				
Mercury	0.149	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01623
Tag: 3 IA06793 Incinerator Ash

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	99.8	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01624
Tag: 4 IA06893 Incinerator Ash

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	100.0	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.33	8080

FECL #: AA01625
Tag: 5 TE07093 Tertiary Effluent

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA01626
Tag: 6 PI07093 Primary Influent

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.001	608

FECL #: AA01627

Tag: 7 II07093 Industrial Influent

Analytical Laboratory Report
City of Kalamazoo, WWTP
March 31, 1993

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 003081

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature) Lisa Gould

PURPOSE OF ANALYSIS

PCB + Ho

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>J. Bragg</i>	3/11/93 9:19 AM			<i>J. Bragg</i>	3/11/93 9:43 PM	<i>Paul George</i>	3/11/93 12:43 PM
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>J. Bragg</i>	3/11/93 9:19 AM						

REMARKS:

Please Send results to Ken Leanin

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

May 7, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: R. GERMAY
Date/Time Submitted: 04/12/93 14:00
PO #: 056756

FECL #: AA02404

Tag: 1 BPC09893 Belt Press Cake
Date/Time Collected: 04/08/93
Matrix: Solid
Container(s): 8 oz. Glass Jar
Preservation: None/Refrigeration

FECL #: AA02405

Tag: 2 DSE09893 DSE Press Cake
Date/Time Collected: 04/08/93
Matrix: Solid
Container(s): 8 oz. Glass Jar
Preservation: None/Refrigeration

FECL #: AA02406

Tag: 3 IA09893 Incinerator Ash
Date/Time Collected: 04/08/93
Matrix: Solid
Container(s): 8 oz. Glass Jar
Preservation: None/Refrigeration

FECL #: AA02407

Tag: 4 TE10293 Tertiary Eff.

Date/Time Collected: 04/12/93 07:00

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration, HNO3*

* Laboratory Preserved

FECL #: AA02408

Tag: 5 II10293 Industrial Inf.

Date/Time Collected: 04/12/93 07:00

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration, HNO3*

* Laboratory Preserved

FECL #: AA02409

Tag: 6 PI10293 Primary Inf.

Date/Time Collected: 04/12/93 07:00

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration, HNO3*

* Laboratory Preserved

Analytical Laboratory Report
City of Kalamazoo
May 7, 1993

FECL #: AA02404
TAG: 1 BPC09893 Belt Press Cake

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	30.0	%	1	160.3
METALS				
Mercury	0.070	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA02405
TAG: 2 DSE09893 DSE Press Cake

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	58.4	%	1	160.3
METALS				
Mercury	0.628	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA02406
TAG: 3 IA09893 Incinerator Ash

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

Analytical Laboratory Report
City of Kalamazoo
May 7, 1993

FECL #: AA02407
TAG: 4 TE10293 Tertiary Eff.

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA02408
TAG: 5 II10293 Industrial Inf.

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.001	608

FECL #: AA02409
TAG: 6 PI10293 Primary Inf.

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Note: Methods may be modified for improved performance.

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 003092

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: *Roger Germany*
(Signature)

PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME 4/11/93 10:41 AM	RECEIVED BY: (Signature)	DATE/TIME 4/12/93 10:21 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME 4/12/93 12:45 PM	RECEIVED BY: (Signature)	DATE/TIME 4/13/93 2:00 PM	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Send Results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

May 7, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: L. GOULD
Date/Time Submitted: 04/09/93 13:00
PO #: 056756

FECL #: AA02366

Tag: 1 TE09893 Tertiary Effluent
Date/Time Collected: 04/08/93 06:30
Matrix: Wastewater
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
* Laboratory Preserved

FECL #: AA02367

Tag: 2 PI09893 Industrial Influent
Date/Time Collected: 04/08/93 06:30
Matrix: Wastewater
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
* Laboratory Preserved

FECL #: AA02368

Tag: 3 PI09893 Primary Influent
Date/Time Collected: 04/08/93 06:30
Matrix: Wastewater
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
* Laboratory Preserved

FECL #: AA02369

Tag: 4 BPC09793 Belt Press Cake

Date/Time Collected: 04/07/93

Matrix: Solid

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA02370

Tag: 5 DSE09793 DSE Press Cake

Date/Time Collected: 04/07/93

Matrix: Solid

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

FECL #: AA02371

Tag: 6 IA09793 Incinerator Ash

Date/Time Collected: 04/07/93

Matrix: Solid

Container(s): 8 oz. Glass Jar

Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
May 7, 1993

FECL #: AA02366
TAG: 1 TE09893 Tertiary Effluent

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA02367
TAG: 2 II09893 Industrial Influent

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA02368
TAG: 3 PI09893 Primary Influent

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Analytical Laboratory Report
City of Kalamazoo
May 7, 1993

FECL #: AA02369
TAG: 4 BPC09793 Belt Press Cake

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	31.0	%	1	160.3
METALS				
Mercury	0.058	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA02370
TAG: 5 DSE09793 DSE Press Cake

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	57.5	%	1	160.3
METALS				
Mercury	0.633	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA02371
TAG: 6 IA09793 Incinerator Ash

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

**Analytical Laboratory Report
City of Kalamazoo
May 7, 1993**

FECL #'s: AA02366 - AA02371

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 003090

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature) Lisa Gould

PURPOSE OF ANALYSIS:

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	4/8/93 11:38 AM		4/8/93 11:38 AM	.			
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	4/8/93 3:31 PM		4/9/93 1:00	.			

REMARKS

Send results to Ken Leanin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

June 8, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 41517

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: C. JONES
Date/Time Submitted: 05/06/93 14:00
PO #: 056756

FECL #: AA03324
Tag: 1 DSE Press CK DSE12393
Date/Time Collected: 05/03/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA03325
Tag: 2 Belt Press CK BPC12393
Date/Time Collected: 05/03/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration
** PCB Higher Detection Limit Due to Matrix Interferences

FECL #: AA03326
Tag: 3 Incinerator Ash IA12393
Date/Time Collected: 05/03/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA03327

Tag: 4 Pri. Inf. PR12593

Date/Time Collected: 05/05/93

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration

** PCB Higher Detection Limit Due to Matrix Interferences

FECL #: AA03328

Tag: 5 Tert. Iff. TE12593

Date/Time Collected: 05/05/93

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration

FECL #: AA03329

Tag: 6 Ind. Inf. II12593

Date/Time Collected: 05/05/93

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration

** PCB Higher Detection Limit Due to Matrix Interferences

Analytical Laboratory Report
City of Kalamazoo
June 8, 1993

FECL #: AA03324
TAG: 1 DSE Press CK DSE12393

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	57.3	%	1	160.3
METALS				
Mercury	0.262	mg/kg	0.020	6020
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA03325
TAG: 2 Belt Press CK BPC12393

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	28.1	%	1	160.3
METALS				
Mercury	0.094	mg/kg	0.020	6020
ORGANICS				
PCB	Not detected	mg/kg	0.5	8080

FECL #: AA03326
TAG: 3 Incinerator Ash IA12393

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	6020
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

Analytical Laboratory Report
City of Kalamazoo
June 8, 1993

FECL #: AA03327
TAG: 4 Pri. Inf. PR12593

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	200.8
ORGANICS				
PCB	Not detected	mg/l	0.001	608

FECL #: AA03328
TAG: 5 Tert. Iff. TE12593

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	200.8
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA03329
TAG: 6 Ind. Inf. II12593

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	200.8
ORGANICS				
PCB	Not detected	mg/l	0.001	608

Note: Methods may be modified for improved performance.

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 003099

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)	Cowen Jones / Plant Operator	PURPOSE OF ANALYSIS:
		PCB & Hg

1 RELINQUISHED BY: (Signature) <i>Gwen Jones</i>	DATE/TIME <i>5/6/93 9:58</i>	RECEIVED BY: (Signature) <i>Andrew J. Coxson</i>	DATE/TIME <i>5/6/93 9:58 am</i>	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature) <i>J. H. Miller</i>	DATE/TIME <i>5/6/93 1:00</i>	RECEIVED BY: (Signature) <i>Craiglin</i>	DATE/TIME <i>5/6/93 2:00p</i>	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS: Results given to Ken Learin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

June 9, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49017

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: C. JONES
Date/Time Submitted: 05/14/93 14:50
PO #: 056756

FECL #: AA03604
Tag: 1 Primary Inf. PRI13293
Date/Time Collected: 05/12/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved
** PCB Higher Detection Limit Due to Matrix Interference

FECL #: AA03605
Tag: 2 Tertiary Eff. TE13293
Date/Time Collected: 05/12/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA03606
Tag: 3 Industrial Inf. II13293
Date/Time Collected: 05/12/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved
**PCB Higher Detection Limit Due to Matrix Interference

FECL #: AA03607
Tag: 4 Belt Press Cake BPC13193
Date/Time Collected: 05/11/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration
****PCB Higher Detection Limit Due to Matrix Interference**

FECL #: AA03608
Tag: 5 DSE Press Cake DSE13193
Date/Time Collected: 05/11/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA03609
Tag: 6 Incinerator Ash IA13293
Date/Time Collected: 05/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
June 9, 1993

FECL #: AA03604
TAG: 1 Primary Inf. PRI13293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.001	608

FECL #: AA03605
TAG: 2 Tertiary Eff. TE13293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA03606
TAG: 3 Industrial Inf. II13293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.01	608

Analytical Laboratory Report
City of Kalamazoo
June 9, 1993

FECL #: AA03607
TAG: 4 Belt Press Cake BPC13193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	28.0	%	1	160.3
METALS				
Mercury	0.120	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.5	8080

FECL #: AA03608
TAG: 5 DSE Press Cake DSE13193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	55.7	%	1	160.3
METALS				
Mercury	0.201	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA03609
TAG: 6 Incinerator Ash IA13293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	99.9	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

Analytical Laboratory Report
City of Kalamazoo
June 9, 1993

FECL #'s: AA03604 - AA03609

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 003100

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

Cowen Jones

PCB + Ha

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>J. Jones</i>	5/13/93 10:04 am	<i>Andrew J. Carter</i>	5/13/93 10:04 am				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Andrew J. Carter</i>	5/13/93 1:16 pm	<i>Craig M.</i>	5/14/93 2:50 pm				

REMARKS: Please send results to Ken Leanin

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

June 24, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 06/07/93 12:49
PO #: 056756

FECL #: AA04159

Tag: 1 & 5 Primary Inf PI15893
Date/Time Collected: 06/07/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved
** Higher Detection Limit on PCB Due to Matrix Interferences

FECL #: AA04160

Tag: 2 & 6 Industrial Inf. II15893
Date/Time Collected: 06/07/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved
** Higher Detection Limit on PCB Due to Matrix Interference

FECL #: AA04161

Tag: 3 & 7 Tertiary Effluent TE15893
Date/Time Collected: 06/07/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA04162
Tag: 4 Tertiary Effluent TE15893
Date/Time Collected: 06/07/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration

FECL #: AA04163
Tag: 8 Belt Press Cake BPC15493
Date/Time Collected: 06/07/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None
** Higher Detection Limit on PCB Due to Matrix Interference

FECL #: AA04164
Tag: 9 Incinerator Ash IA15493
Date/Time Collected: 06/07/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None

FECL #: AA04165
Tag: 10 DSE Press Cake DSE15493
Date/Time Collected: 06/07/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None

Analytical Laboratory Report
City of Kalamazoo
June 24, 1993

FECL #: AA04159
TAG: 1 & 5 Primary Inf PI15893

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0005	608

FECL #: AA04160
TAG: 2 & 6 Industrial Inf. II15893

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0005	608

FECL #: AA04161
TAG: 3 & 7 Tertiary Effluent TE15893

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Analytical Laboratory Report
City of Kalamazoo
June 24, 1993

FECL #: AA04162
TAG: 4 Tertiary Effluent TE15893

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS Naphthalene	Not detected	mg/l	0.005	8310

FECL #: AA04163
TAG: 8 Belt Press Cake BPC15493

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS Total Solids	28.4	%	1	160.3
METALS Mercury	Not detected	mg/kg	0.020	7471
ORGANICS PCB	Not detected	mg/kg	0.5	8080

FECL #: AA04164
TAG: 9 Incinerator Ash IA15493

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS Total Solids	99.7	%	1	160.3
METALS Mercury	Not detected	mg/kg	0.020	7471
ORGANICS PCB	Not detected	mg/kg	0.3	8080

Analytical Laboratory Report
City of Kalamazoo
June 24, 1993

FECL #: AA04165
TAG: 10 DSE Press Cake DSE15493

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	57.6	%	1	160.3
METALS				
Mercury	0.494	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

No 001611

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)	<i>D. Jones</i>				PURPOSE OF ANALYSIS:			
				PCB, Hg & Naphthalene				

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS		
4159 1	Primary Inf	PI15893	1-L	6/7/93			H✓	KWRP (Water Reclamation Plant) PCB		
4160 2	Industrial Inf.	II15893	1-L	6/7/93			H✓	" " PCB		
4161 3	Tertiary Effluent	TE158-93	1-L	6/7/93			H✓	" " PCB		
4 4162	Tertiary Effluent	TE158-93	1-L	6/7/93			H✓	" " Naphthalene		
4159 5	Primary Inf	PI15893	100 m	6/7/93			H✓	" " Hg		
4160 6	Industrial Inf.	II15893	100 m	6/7/93			H✓	" " Hg		
4161 7	Tertiary eff.	TE15893	100 m	6/7/93			H✓	" " Hg		
8 4163	Belt Press Cake	BPC15893	802	6/3/93			H✓	" " PCB + Hg		
9 4164	Incinerator Ash	IA16493	802	6/3/93			H✓	" " PCB + Hg		
10 4165	DSE Press Cake	DSE15893	802	6/3/93			H✓	" " PCB + Hg		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Roger Farney</i>	6/7/93 9:42am	= <i>A. Coborn</i>	6/7/93 9:42am				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>A. Coborn</i>	6/7/93 11:40am	= <i>Coughlin</i>	6/7/93 12:49				

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

June 24, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 06/14/93 15:00
PO #: 056756

FECL #: AA04386

Tag: 1 & 4 Primary Influent PI16593
Date/Time Collected: 06/14/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA04387

Tag: 2 & 5 Tertiary Effluent TE16593
Date/Time Collected: 06/14/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA04388

Tag: 3 & 6 Industrial Influent II16593
Date/Time Collected: 06/14/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3
** Higher Detection Limit on PCB Due to Matrix Interference

FECL #: AA04389
Tag: 7 DSE Press Cake DSE16193
Date/Time Collected: 06/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA04390
Tag: 8 Belt Press Cake BPC16193
Date/Time Collected: 06/14/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA04391
Tag: 9 Incinerator Ash IA16193
Date/Time Collected: 06/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
June 24, 1993

FECL #: AA04386
TAG: 1 & 4 Primary Influent PI16593

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA04387
TAG: 2 & 5 Tertiary Effluent TE16593

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA04388
TAG: 3 & 6 Industrial Influent II16593

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.01	608

Analytical Laboratory Report
City of Kalamazoo
June 24, 1993

FECL #: AA04389
TAG: 7 DSE Press Cake DSE16193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	57.5	%	1	160.3
METALS				
Mercury	0.448	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA04390
TAG: 8 Belt Press Cake BPC16193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	28.1	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA04391
TAG: 9 Incinerator Ash IA16193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	99.8	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080


Analytical Laboratory Report
City of Kalamazoo
June 24, 1993

FECL #'s: AA04386 - AA04391

Note: Methods may be modified for improved performance.

V.F. Murshak, MS

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

1 Week Rush No 001613

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

Gwen Jones / Plant
Operators

PURPOSE OF ANALYSIS:

PCB & Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	D A T E	T I M E	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS		
4386	Primary Influent	PI 10593	1-1L				H	Water Reclamation		PCB
4387	Tertiary Effluent	TE 16593	1-1L				H	"	"	PCB
4388	Industrial Influent	II 16593	1-1L				H	"	"	PCB
4389	Primary Influent	PI 16593	1-125mL 200mL				H	"	"	Hg
4390	Tertiary Effluent	TE 16593	1-125mL 200mL				H	"	"	Hg
4391	Industrial Influent	II 16593	1-125mL 200mL				H	"	"	Hg
4392	DSE Press Cake	DSE 16193	1-8 oz				H	"	"	PCB + Hg
4393	Belt Press cake	BPC 16193	1-8 oz				H	"	"	PCB + Hg
4394	Incinerator Ash	IA 16193	1-8 oz				H	"	"	PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Gwen Jones	6/14/93 9:34	Paul George	6/14/93 9:34				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		Gwynn M.	6/14/93 3:00p				

REMARKS: Send results to Ren Leavin (Lab Supervisor)



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

July 29, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 07/12/93 14:50
PO #: 056756

FECL #: AA05482
Tag: 1 Primary Influent PI19093
Date/Time Collected: 07/09/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA05483
Tag: 2 Tertiary Effluent TE19093
Date/Time Collected: 07/09/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA05484
Tag: 3 Industrial Influent II19093
Date/Time Collected: 07/09/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA05485
Tag: 4 Incinerator Ash IA19193
Date/Time Collected: 07/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05486
Tag: 5 DSE Press Cake DSE19193
Date/Time Collected: 07/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05487
Tag: 6 Belt Press Cake BPC19193
Date/Time Collected: 07/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
July 29, 1993

FECL #: AA05482
TAG: 1 Primary Influent PI19093

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA05483
TAG: 2 Tertiary Effluent TE19093

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA05484
TAG: 3 Industrial Influent II19093

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Analytical Laboratory Report
City of Kalamazoo
July 29, 1993

FECL #: AA05485
TAG: 4 Incinerator Ash IA19193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA05486
TAG: 5 DSE Press Cake DSE19193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	58	%	1	160.3
METALS				
Mercury	0.354	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA05487
TAG: 6 Belt Press Cake BPC19193

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	33	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080


Analytical Laboratory Report
City of Kalamazoo
July 29, 1993

FECL #'s: AA05482 - AA05487

Note: Methods may be modified for improved performance.

V.F. Murshak, Inc.

Violetta F. Murshak
Laboratory Manager



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

July 29, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 07/12/93 14:50
PO #: 056756

FECL #: AA05488

Tag: 1 Industrial Influent II19393
Date/Time Collected: 07/12/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA05489

Tag: 2 Tertiary Effluent TE19393
Date/Time Collected: 07/12/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA05490

Tag: 3 Primary Influent PI19393
Date/Time Collected: 07/12/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA05491
Tag: 4 Belt Press Cake BPC19393
Date/Time Collected: 07/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05492
Tag: 5 DSE Press Cake DSE19393
Date/Time Collected: 07/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA05493
Tag: 6 Incinerator Ash IA19393
Date/Time Collected: 07/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
July 29, 1993

FECL #: AA05488
TAG: 1 Industrial Influent II19393

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA05489
TAG: 2 Tertiary Effluent TE19393

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA05490
TAG: 3 Primary Influent PI19393

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Analytical Laboratory Report
City of Kalamazoo
July 29, 1993

FECL #: AA05491
TAG: 4 Belt Press Cake BPC19393

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	34	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.5	8080

FECL #: AA05492
TAG: 5 DSE Press Cake DSE19393

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	58	%	1	160.3
METALS				
Mercury	0.409	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA05493
TAG: 6 Incinerator Ash IA19393

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.020	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

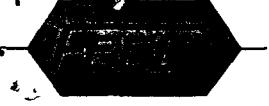

Analytical Laboratory Report
City of Kalamazoo
July 29, 1993

FECL #'s: AA05488 - AA05493

Note: Methods may be modified for improved performance.

V.F. Murshak

Violetta F. Murshak
Laboratory Manager



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

August 20, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: GJ
Date/Time Submitted: 08/05/93 12:50
PO #: 056756

FECL #: AA06082

Tag: 1 & 2 Tertiary Eff. TE21793
Date/Time Collected: 08/05/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA06083

Tag: 3 & 4 Primary Inf. PI21793
Date/Time Collected: 08/05/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA06084

Tag: 5 & 6 Industrial Inf. II21793
Date/Time Collected: 08/05/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA06085
Tag: 7 Belt Press Cake BPC21493
Date/Time Collected: 08/02/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06086
Tag: 8 DSE Press Cake DSE21493
Date/Time Collected: 08/02/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06087
Tag: 9 Incinerator Ash IA21493
Date/Time Collected: 08/02/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
August 20, 1993

FECL #: AA06082
TAG: 1 & 2 Tertiary Eff. TE21793

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA06083
TAG: 3 & 4 Primary Inf. PI21793

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.001	608

FECL #: AA06084
TAG: 5 & 6 Industrial Inf. II21793

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.001	608

**ANALYTICAL
LABORATORY REPORT**

City of Kalamazoo
August 20, 1993

FECL #: AA06085
TAG: 7 Belt Press Cake BPC21493

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	38	%	1	160.3
METALS				
Mercury	0.04	mg/kg	0.02	7471
ORGANICS				
PCB	Not detected	mg/kg	0.5	8080

FECL #: AA06086
TAG: 8 DSE Press Cake DSE21493

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	61	%	1	160.3
METALS				
Mercury	0.18	mg/kg	0.02	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA06087
TAG: 9 Incinerator Ash IA21493

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.02	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080



Analytical Laboratory Report
City of Kalamazoo
August 20, 1993

FECL #'s: AA06082 - AA06087

Note: Methods may be modified for improved performance.

V.F. Murshak (EFVN)

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

No 002529

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)	EDD / Plant Oper.				PURPOSE OF ANALYSIS.			
					PCB & Hg			

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	D A T E	T I M E	C O M P	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Eff.	TE21793	1-1L	8/5/93			H	K.W.R.P. PCB
2	Tertiary Eff.	TE21793	1-125mL	8/5/93			H	K.W.R.P. Hg
3	Primary Inf.	PI21793	1-1L	8/5/93			H	K.W.R.P. PCB
4	Primary Inf.	PI21793	1-125mL	8/5/93			H	K.W.R.P. Hg
5	Industrial Inf.	II21793	1-1L	8/5/93			H	K.W.R.P. PCB
6	Industrial Inf.	II21793	1-125mL	8/5/93			H	K.W.R.P. Hg
6085 7	Belt Press Cake	BPC21493	1-8oz	8/2/93			H	K.W.R.P. PCB + Hg
6086 8	DSE Press Cake	DSE21493	1-8oz	8/2/93			H	K.W.R.P. PCB + Hg
6087 9	Incinerator Ash	IA21493	1-8oz	8/2/93			H	K.W.R.P. PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Stephen Jones</i>	8/5/93	9:20	<i>Paul George</i>	8/5/93	9:20 4:14		

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		<i>Connie J.</i>	8/5/93	12:30			

REMARKS:

FE & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

August 25, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 08/09/93 16:30
PO #: 056756

FECL #: AA06132
Tag: 1 & 2 Tertiary Eff. TE22193
Date/Time Collected: 08/09/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA06133
Tag: 3 & 4 Primary Inf. PI22193
Date/Time Collected: 08/09/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved
** Higher Detection Limit on PCB Due to Matrix Interference

FECL #: AA06134
Tag: 5 & 6 Industrial Inf. II22193
Date/Time Collected: 08/09/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA06135
Tag: 7 Belt Press Cake BPC21793
Date/Time Collected: 08/05/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06136
Tag: 8 DSE Press Cake DSE21793
Date/Time Collected: 08/05/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06137
Tag: 9 Incinerator Ash LA21793
Date/Time Collected: 08/05/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
August 25, 1993

FECL #: AA06132
TAG: 1 & 2 Tertiary Eff. TE22193

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA06133
TAG: 3 & 4 Primary Inf. PI22193

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.001	608

FECL #: AA06134
TAG: 5 & 6 Industrial Inf. II22193

Analysis	Results	Units	MDL	Method
METALS				
Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Analytical Laboratory Report
City of Kalamazoo
August 25, 1993

FECL #: AA06135
TAG: 7 Belt Press Cake BPC21793

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	31	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA06136
TAG: 8 DSE Press Cake DSE21793

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	59	%	1	160.3
METALS				
Mercury	0.32	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA06137
TAG: 9 Incinerator Ash IA21793

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	100	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

Analytical Laboratory Report
City of Kalamazoo
August 25, 1993

FECL #'s: AA06132 - AA06137

Note: Methods may be modified for improved performance.

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

September 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 09/09/93 16:00
PO #: 056756

FECL #: AA06978
Tag: 1 BPC25093
Date/Time Collected: 09/07/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06979
Tag: 2 IA25093
Date/Time Collected: 09/07/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06980
Tag: 3 DSE25093
Date/Time Collected: 09/07/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA06981

Tag: 4 TE25293

Date/Time Collected: 09/09/93 07:00

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration, HNO3*

*Laboratory Preserved

FECL #: AA06982

Tag: 5 PI25293

Date/Time Collected: 09/09/93 07:00

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration, HNO3*

*Laboratory Preserved

FECL #: AA06983

Tag: 6 PI25293

Date/Time Collected: 09/09/93 07:00

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration, HNO3*

*Laboratory Preserved

Analytical Laboratory Report
City of Kalamazoo
September 29, 1993

FECL #: AA06978
TAG: 1 BPC25093

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	30.6	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA06979
TAG: 2 IA25093

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	99.8	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA06980
TAG: 3 DSE25093

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
INORGANICS				
Total Solids	56.6	%	1	160.3
METALS				
Mercury	0.18	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

Analytical Laboratory Report
City of Kalamazoo
September 29, 1993

FECL #: AA06981
TAG: 4 TE25293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

FECL #: AA06982
TAG: 5 PI25293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

FECL #: AA06983
TAG: 6 II25293

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS Mercury	Not detected	mg/l	0.0005	245.1
ORGANICS PCB	Not detected	mg/l	0.0001	608

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 002539

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS
(Signature)

Gwen Jones

PURPOSE OF ANALYSIS

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Messenger	9/9/93 8:45 AM	P. George	9/9/93 8:45				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		Cuong Linh	9/9/93 4:00				

REMARKS:

Send results to Ken Deakin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

September 30, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 09/13/93 15:20
PO #: 056756

FECL #: AA07032
Tag: 1 & 2 Tertiary Eff TE25693
Date/Time Collected: 09/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA07033
Tag: 3 & 4 Industrial Influent PI25693
Date/Time Collected: 09/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA07034
Tag: 5 & 6 Primary Influent PI25693
Date/Time Collected: 09/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA07035
Tag: 7 Belt Press Cake BPC25293
Date/Time Collected: 09/09/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA07036
Tag: 8 Incinerator Ash IA25293
Date/Time Collected: 09/09/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA07037
Tag: 9 DSE Press Cake DSE25293
Date/Time Collected: 09/09/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
September 30, 1993

FECL #: AA07032
TAG: 1 & 2 Tertiary Eff TE25693

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA07033
TAG: 3 & 4 Industrial Influent II25693

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

FECL #: AA07034
TAG: 5 & 6 Primary Influent PI25693

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
METALS				
Mercury	Not detected	mg/l	0.0005	245.1

<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>
ORGANICS				
PCB	Not detected	mg/l	0.0001	608

Analytical Laboratory Report
City of Kalamazoo
September 30, 1993

FECL #: AA07035
TAG: 7 Belt Press Cake BPC25293

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	62.2	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA07036
TAG: 8 Incinerator Ash IA25293

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	100.0	%	1	160.3
METALS				
Mercury	Not detected	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080

FECL #: AA07037
TAG: 9 DSE Press Cake DSE25293

Analysis	Results	Units	MDL	Method
INORGANICS				
Total Solids	61.4	%	1	160.3
METALS				
Mercury	0.10	mg/kg	0.05	7471
ORGANICS				
PCB	Not detected	mg/kg	0.3	8080


Analytical Laboratory Report
City of Kalamazoo
September 30, 1993

FECL #'s: AA07032 - AA07037

Note: Methods may be modified for improved performance.

V.F. Murshak

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

No. 002542

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)	Swin Jones / Pl. Operator				PURPOSE OF ANALYSIS:			
					PCB + Hg			

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	CMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS	
1	Tertiary Eff	TE 25693	1-1L	9/13/93	Am	H	KWRP		PCB
2	Tertiary Eff	TE 25693	1-125 ml	9/13/93	Am	H	KWRP		Hg
3	Industrial Influent	II 25693	1-1L	9/13/93	Am	H	" "		PCB
4	Industrial Influent	II 25693	1-125 ml	9/13/93	Am	H	" "		Hg
5	Primary Inflent	PI 25693	1-1L	9/13/93	Am	H	" "		PCB
6	Primary Inflent	PI 25693	1-125 ml	9/13/93	Am	H	" "		Hg
7	Belt Press Cake	BPC 25293	1-80Z	9/9/93		✓	" "		PCB + Hg
8	Incinerator Ash	IA 25293	1-80Z	9/9/93		✓	" "		PCB + Hg
9	DSE Press CR	DSE 25293	1-80Z	9/9/93		✓	" "		PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Roger Lerner</i>	9/13/93 11:14 AM	<i>P. Jorgeson</i>	9/13/93 11:14 AM				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		<i>Conway</i>	9/13/93 3:20				

REMARKS:
Please send result to Ken Lerner



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

October 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 10/07/93 16:20
PO #: 056756

FECL #: AA08333

Tag: 1 & 2 Tertiary Eff. TE27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08334

Tag: 3 & 4 Municipal Primary Inf. MPE27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08335

Tag: 5 & 6 Industrial Inf. II27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08336

Tag: 7 Belt Press Cake BPC27993

Date/Time Collected: 10/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA08337

Tag: 8 DSE Press Cake DSE27993

Date/Time Collected: 10/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA08338

Tag: 9 Incinerator Ash IA27993

Date/Time Collected: 10/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

<u>FECL #:</u>	<u>AA08333</u>	<u>1 & 2 Tertiary Eff. TE27993</u>		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>		
METALS						
Mercury			Not detected	mg/l	0.0005	245.1
ORGANICS						
PCB			Not detected	mg/l	0.0001	608
						10/13/93
<u>FECL #:</u>	<u>AA08334</u>	<u>3 & 4 Municipal Primary Inf. MPE27993</u>		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>		
METALS						
Mercury			Not detected	mg/l	0.0005	245.1
ORGANICS						
PCB			Not detected	mg/l	0.0001	608
						10/13/93
<u>FECL #:</u>	<u>AA08335</u>	<u>5 & 6 Industrial Inf. II27993</u>		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>		
METALS						
Mercury			Not detected	mg/l	0.0005	245.1
ORGANICS						
PCB			Not detected	mg/l	0.0001	608
						10/13/93
<u>FECL #:</u>	<u>AA08336</u>	<u>7 Belt Press Cake BPC27993</u>		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>		
INORGANICS						
Total Solids			31.7	%	1	160.3
METALS						
Mercury			Not detected	mg/kg	0.02	7471
ORGANICS						
PCB			Not detected	mg/kg	0.3	8080
						10/24/93

Analytical Laboratory Report
City of Kalamazoo
October 29, 1993

FECL #:	AA08337	8 DSE Press Cake DSE27993		MDL	Method	Date
TAG:		Results	Units			
Analysis						
INORGANICS						
Total Solids	96.9	%	1	160.3		10/07/93
METALS						
Mercury	0.09	mg/kg	0.02	7471		10/28/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		10/13/93

FECL #:	AA08338	9 Incinerator Ash IA27993		MDL	Method	Date
TAG:		Results	Units			
Analysis						
INORGANICS						
Total Solids	99.9	%	1	160.3		10/07/93
METALS						
Mercury	Not detected	mg/kg	0.02	7471		10/28/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		10/24/93

Note: Methods may be modified for improved performance.

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 002556

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)
J. Jones / Operator

PURPOSE OF ANALYSIS.

PCB & Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	CMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS	
1	Tertiary Eff.	TE27993	1-L	10/6/93			H	KWRP	PCB
2	Tertiary Eff.	TE27993	1-125 mL	10/6/93			H	"	Hg
3	Municipal Primary Inf	MPE27993	1-L	10/6/93			H	"	PCB
4	Municipal Primary Inf	MPE27993	1-125 mL	10/6/93			H	"	Hg
5	Industrial Inf.	II27993	1-L	10/6/93			H	"	PCB
6	Industrial Inf.	II27993	1-125 mL	10/6/93			H	"	Hg
7	Belt Press Cake	BPL27993	1-8oz	10/6/93			H	"	PCB & Hg
8	Dose Press Cake	DS27993	1-8oz	10/6/93			H	"	PCB & Hg
9	Incinerator Ash	IA27993	1-8oz	10/6/93			H	"	PCB & Hg

1 RELINQUISHED BY: (Signature) <i>KMessenger</i>	DATE/TIME 10/7/93 10:40 AM	RECEIVED BY: (Signature) <i>Andrew J. Coban</i>	DATE/TIME 10/7/93 10:40 AM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature) <i>Andrew J. Coban</i>	DATE/TIME 10/7/93 12:40 PM	RECEIVED BY: (Signature) <i>Christopher</i>	DATE/TIME 10/7/93 4:20	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

October 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 10/14/93 11:15
PO #: 056756

FECL #: AA08529

Tag: 1 & 2 Tertiary Eff TE28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08530

Tag: 3 & 4 Mun. Primary Inf MPE28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08531

Tag: 5 & 6 Industrial Inf II28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08532
Tag: 7 Belt Press Cake BPC28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08533
Tag: 8 DSE Press Cake DSE28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08534
Tag: 9 Incinerator Ash IA28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08529	1 & 2 Tertiary Eff TE28693			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0002	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608
					10/18/93
FECL #:	AA08530	3 & 4 Mun. Primary Inf MPE28693			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		0.0003	mg/l	0.0002	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608
					10/19/93
FECL #:	AA08531	5 & 6 Industrial Inf II28693			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0005	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608
					10/19/93
FECL #:	AA08532	7 Belt Press Cake BPC28593			
TAG:		Results	Units	MDL	Method
Analysis					Date
INORGANICS					
Total Solids		33.7	%	1	160.3
METALS					
Mercury		0.04	mg/kg	0.02	7471
ORGANICS					
PCB		Not detected	mg/kg	0.3	8080
					10/24/93

Analytical Laboratory Report
City of Kalamazoo
October 29, 1993

FECL #:	AA08533	8 DSE Press Cake DSE28593		MDL	Method	Date
TAG:		Results	Units			
INORGANICS						
Total Solids	56.1	%	1	160.3		10/14/93
METALS						
Mercury	0.10	mg/kg	0.02	7471		10/28/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		10/19/93

FECL #:	AA08534	9 Incinerator Ash IA28593		MDL	Method	Date
TAG:		Results	Units			
INORGANICS						
Total Solids	99.9	%	1	160.3		10/14/93
METALS						
Mercury	Not detected	mg/kg	0.02	7471		10/28/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		10/19/93

Note: Methods may be modified for improved performance.



Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

No 002557

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)	<i>L. Jones/Pl. Oper.</i>				PURPOSE OF ANALYSIS:			
					<i>PCB & Hg</i>			

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS	
1	Tertiary Eff	TE28693	1-1L	10/13/93			H	KWRP	PCB
2	Tertiary Eff	TE28693	1-125mL	10/13/93			H	" "	Hg
3	MUN. Primary Inf	MPE28693	1-1L	10/13/93			H	" "	PCB
4	MUN. Primary Inf	MPE28693	1-125mL	10/13/93			H	" "	Hg
5	Industrial Inf.	II28693	1-1L	10/13/93			H	" "	PCB
6	Industrial Inf.	II28693	1-125mL	10/13/93			H	" "	Hg
7	Belt Press cake	BFC28593	1-8oz	10/12/93			H	" "	PCB & Hg
8	DSE Press cake	DSE28593	1-8oz	10/12/93			H	" "	PCB & Hg
9	INCINERATOR Ash	IA28593	1-8oz	10/12/93			H	" "	PCB & Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>L. Jones</i>	10/14/93	8:56	<i>Andrew J. Coban</i>	10/14/93	8:36 an		

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Andrew J. Coban</i>	10/14/93	10:35 an	<i>Cuong Phu</i>	10/14/93	11:15		

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
7160 Graham Rd., Indianapolis, IN 46250 (317) 577-8087 FAX (317) 594-9406

FECL FAX Transmission Report

Time 5:36 Date 10-29-93

TO: Nasim Ansari FAX NUMBER: 337-8699
COMPANY: Kalamazoo
NUMBER OF PAGES (Including Cover) 8

MESSAGE

FROM:

Susanne Am

FECL FAX NUMBER (517) 332-6333

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

October 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 10/14/93 11:15
PO #: 056756

FECL #: AA08529
Tag: 1 & 2 Tertiary Eff TE28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08530
Tag: 3 & 4 Mun. Primary Inf MPE28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08531
Tag: 5 & 6 Industrial Inf II28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08532
Tag: 7 Belt Press Cake BPC28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08533
Tag: 8 DSE Press Cake DSE28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08534
Tag: 9 Incinerator Ash IA28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08529	1 & 2 Tertiary Eff TE28693			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0002	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608
					10/18/93

FECL #:	AA08530	3 & 4 Mun. Primary Inf MPE28693			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		0.0003	mg/l	0.0002	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608
					10/19/93

FECL #:	AA08531	5 & 6 Industrial Inf II28693			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0005	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608
					10/19/93

FECL #:	AA08532	7 Belt Press Cake BPC28593			
TAG:		Results	Units	MDL	Method
Analysis					Date
INORGANICS					
Total Solids		33.7	%	1	160.3
METALS					
Mercury		0.04	mg/kg	0.02	7471
ORGANICS					
PCB		Not detected	mg/kg	0.3	8080
					10/24/93

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08533				
TAG:	8 DSE Press Cake DSE28593				
Analysis	Results	Units	MDL	Method	Date
INORGANICS					
Total Solids	56.1	%	1	160.3	10/14/93
METALS					
Mercury	0.10	mg/kg	0.02	7471	10/28/93
ORGANICS					
PCB	Not detected	mg/kg	0.3	8080	10/19/93

FECL #:	AA08534				
TAG:	9 Incinerator Ash IA28593				
Analysis	Results	Units	MDL	Method	Date
INORGANICS					
Total Solids	99.9	%	1	160.3	10/14/93
METALS					
Mercury	Not detected	mg/kg	0.02	7471	10/28/93
ORGANICS					
PCB	Not detected	mg/kg	0.3	8080	10/19/93

Note: Methods may be modified for improved performance.

Violetta F. Murshak
 Laboratory Manager

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

October 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 10/07/93 16:20
PO #: 056756

FECL #: AA08333
Tag: 1 & 2 Tertiary Eff. TE27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08334
Tag: 3 & 4 Municipal Primary Inf. MPE27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08335
Tag: 5 & 6 Industrial Inf. II27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08336
Tag: 7 Belt Press Cake BPC27993
Date/Time Collected: 10/06/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08337
Tag: 8 DSE Press Cake DSE27993
Date/Time Collected: 10/06/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08338
Tag: 9 Incinerator Ash IA27993
Date/Time Collected: 10/06/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08333				
TAG:	1 & 2 Tertiary Eff. TE27993				
Analysis	Results	Units	MDL	Method	Date
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	10/13/93

FECL #:	AA08334				
TAG:	3 & 4 Municipal Primary Inf. MPE27993				
Analysis	Results	Units	MDL	Method	Date
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	10/13/93

FECL #:	AA08335				
TAG:	5 & 6 Industrial Inf. II27993				
Analysis	Results	Units	MDL	Method	Date
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	10/13/93

FECL #:	AA08336				
TAG:	7 Belt Press Cake BPC27993				
Analysis	Results	Units	MDL	Method	Date
INORGANICS					
Total Solids	31.7	%	1	160.3	10/07/93
METALS					
Mercury	Not detected	mg/kg	0.02	7471	10/28/93
ORGANICS					
PCB	Not detected	mg/kg	0.3	8080	10/24/93

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

<u>FECL #:</u>	AA08337		<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>						
<u>TAG:</u>	8 DSE Press Cake DSE27993													
INORGANICS														
Total Solids	96.9	%			1	160.3		10/07/93						
METALS														
Mercury	0.09	mg/kg			0.02	7471		10/28/93						
ORGANICS														
PCB	Not detected	mg/kg			0.3	8080		10/13/93						

<u>FECL #:</u>	AA08338		<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>						
<u>TAG:</u>	9 Incinerator Ash IA27993													
INORGANICS														
Total Solids	99.9	%			1	160.3		10/07/93						
METALS														
Mercury	Not detected	mg/kg			0.02	7471		10/28/93						
ORGANICS														
PCB	Not detected	mg/kg			0.3	8080		10/24/93						

Note: Methods may be modified for improved performance.


 Violetta F. Murshak
 Laboratory Manager



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823 (517) 332-0167 FAX (517) 332-6333
7160 Graham Rd., Indianapolis, IN 46250 (317) 577-8087 FAX (317) 594-9406

FECL FAX Transmission Report

Time 5:36 Date 10-29-93

TO: Ahsim Ansari FAX NUMBER: 337-8699
COMPANY: Kalamazoo
NUMBER OF PAGES (Including Cover) 8

MESSAGE

FROM: Lorraine Ame

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

October 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 10/14/93 11:15
PO #: 056756

FECL #: AA08529

Tag: 1 & 2 Tertiary Eff TE28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08530

Tag: 3 & 4 Mun. Primary Inf MPE28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08531

Tag: 5 & 6 Industrial Inf LI28693
Date/Time Collected: 10/13/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08532
Tag: 7 Belt Press Cake BPC28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08533
Tag: 8 DSE Press Cake DSE28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA08534
Tag: 9 Incinerator Ash IA28593
Date/Time Collected: 10/12/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08529	1 & 2 Tertiary Eff TE28693		MDL	Method	Date
TAG:		Results	Units			
Analysis						
METALS						
Mercury		Not detected	mg/l	0.0002	245.1	10/28/93
ORGANICS						
PCB		Not detected	mg/l	0.0001	608	10/18/93

FECL #:	AA08530	3 & 4 Mun. Primary Inf MPE28693		MDL	Method	Date
TAG:		Results	Units			
Analysis						
METALS						
Mercury		0.0003	mg/l	0.0002	245.1	10/28/93
ORGANICS						
PCB		Not detected	mg/l	0.0001	608	10/19/93

FECL #:	AA08531	5 & 6 Industrial Inf II28693		MDL	Method	Date
TAG:		Results	Units			
Analysis						
METALS						
Mercury		Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS						
PCB		Not detected	mg/l	0.0001	608	10/19/93

FECL #:	AA08532	7 Belt Press Cake BPC28593		MDL	Method	Date
TAG:		Results	Units			
Analysis						
INORGANICS						
Total Solids		33.7	%	1	160.3	10/14/93
METALS						
Mercury		0.04	mg/kg	0.02	7471	10/28/93
ORGANICS						
PCB		Not detected	mg/kg	0.3	8080	10/24/93

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08533					
TAG:	8 DSE Press Cake	DSE28593				
Analysis	Results	Units	MDL	Method	Date	
INORGANICS						
Total Solids	56.1	%	1	160.3	10/14/93	
METALS						
Mercury	0.10	mg/kg	0.02	7471	10/28/93	
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080	10/19/93	

FECL #:	AA08534					
TAG:	9 Incinerator Ash	IA28593				
Analysis	Results	Units	MDL	Method	Date	
INORGANICS						
Total Solids	99.9	%	1	160.3	10/14/93	
METALS						
Mercury	Not detected	mg/kg	0.02	7471	10/28/93	
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080	10/19/93	

Note: Methods may be modified for improved performance.

Violetta F. Murshak
 Laboratory Manager

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

October 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 10/07/93 16:20
PO #: 056756

FECL #: AA08333
Tag: 1 & 2 Tertiary Eff. TE27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08334
Tag: 3 & 4 Municipal Primary Inf. MPE27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08335
Tag: 5 & 6 Industrial Inf. II27993
Date/Time Collected: 10/06/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA08336

Tag: 7 Belt Press Cake BPC27993

Date/Time Collected: 10/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA08337

Tag: 8 DSE Press Cake DSE27993

Date/Time Collected: 10/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA08338

Tag: 9 Incinerator Ash IA27993

Date/Time Collected: 10/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

FECL #:	AA08333				
TAG:	1 & 2 Tertiary Eff.	TE27993			
Analysis	Results	Units	MDL	Method	Date
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	10/13/93

FECL #:	AA08334				
TAG:	3 & 4 Municipal Primary Inf.	MPE27993			
Analysis	Results	Units	MDL	Method	Date
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	10/13/93

FECL #:	AA08335				
TAG:	5 & 6 Industrial Inf.	II27993			
Analysis	Results	Units	MDL	Method	Date
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	10/28/93
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	10/13/93

FECL #:	AA08336				
TAG:	7 Belt Press Cake	BPC27993			
Analysis	Results	Units	MDL	Method	Date
INORGANICS					
Total Solids	31.7	%	1	160.3	10/07/93
METALS					
Mercury	Not detected	mg/kg	0.02	7471	10/28/93
ORGANICS					
PCB	Not detected	mg/kg	0.3	8080	10/24/93

Analytical Laboratory Report
 City of Kalamazoo
 October 29, 1993

<u>FECL #:</u>	AA08337						
<u>TAG:</u>	8 DSE Press Cake DSE27993	<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
INORGANICS							
Total Solids	96.9		%	1	160.3		10/07/93
METALS							
Mercury	0.09		mg/kg	0.02	7471		10/28/93
ORGANICS							
PCB	Not detected		mg/kg	0.3	8080		10/13/93

<u>FECL #:</u>	AA08338						
<u>TAG:</u>	9 Incinerator Ash IA27993	<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
INORGANICS							
Total Solids	99.9		%	1	160.3		10/07/93
METALS							
Mercury	Not detected		mg/kg	0.02	7471		10/28/93
ORGANICS							
PCB	Not detected		mg/kg	0.3	8080		10/24/93

Note: Methods may be modified for improved performance.

Violetta F. Murshak
 Laboratory Manager

CHAIN OF CUSTODY RECORD

No 002575

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

Gwen Jones /Operator

PURPOSE OF ANALYSIS.

PCB + Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS	
1	Tertiary eff	TE31293 3T	1 - 1L	11/8/93			H	KWRP	PCB
2	Tertiary eff	TE31293	1 - 125 ml	11/8/93			H	" "	Hg
3	Industrial INF.	II 31293	1 - 1L	11/8/93			H	" "	PCB
4	Industrial INF	II 31293	1 - 125 ml	11/8/93			H	" "	Hg
5	MUN. Primary INF.	MPI 31293	1 - 125 ml	11/8/93			H	" "	Hg
6	MUN. Primary INF.	MPI 31293	1 - 1L	11/8/93			H	" "	PCB
7	Belt Press Cake	BPC 31093	1 - 8oz	11/6/93			H	" "	PCB + Hg
8	DSE Cake	DSE 31093	1 - 8oz	11/6/93			H	" "	PCB + Hg
9	Incinerator Ash	IA 31093	1 - 8oz	11/6/93			H	" "	PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Messenger	11/8/93 9:00 Am	P. Hoeger	11/8/93 9:00 AM				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		C. Wong Jr.	11/8/93 6:00				

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

November 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 11/08/93 18:00
PO #: 056756

FECL #: AA09562

Tag: 1 & 2 Tertiary Eff. TE30993
Date/Time Collected: 11/05/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA09563

Tag: 3 & 4 Mun. Primary Inf. MPI30993
Date/Time Collected: 11/05/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA09564

Tag: 5 & 6 Industrial Inf. II30993
Date/Time Collected: 11/05/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved



FECL #: AA09565

Tag: 7 Belt Press Cake BPC30893

Date/Time Collected: 11/04/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA09566

Tag: 8 DSE Cake DSE30893

Date/Time Collected: 11/04/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA09567

Tag: 9 Incinerator Ash IA30893

Date/Time Collected: 11/04/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
November 29, 1993

FECL #:	AA09562	1 & 2 Tertiary Eff. TE30993		MDL	Method	Date
TAG:	Analysis	Results	Units			
METALS						
Mercury		Not detected	mg/l	0.0005	245.1	11/25/93
ORGANICS						
PCB		Not detected	mg/l	0.0001	608	11/17/93

FECL #:	AA09563	3 & 4 Mun. Primary Inf. MPI30993		MDL	Method	Date
TAG:	Analysis	Results	Units			
METALS						
Mercury		Not detected	mg/l	0.0005	245.1	11/25/93
ORGANICS						
PCB		Not detected	mg/l	0.0001	608	11/17/93

FECL #:	AA09564	5 & 6 Industrial Inf. II30993		MDL	Method	Date
TAG:	Analysis	Results	Units			
METALS						
Mercury		Not detected	mg/l	0.0005	245.1	11/25/93
ORGANICS						
PCB		Not detected	mg/l	0.0001	608	11/17/93

FECL #:	AA09565	7 Belt Press Cake BPC30893		MDL	Method	Date
TAG:	Analysis	Results	Units			
INORGANICS						
Total Solids		27.9	%	1	160.3	11/09/93
METALS						
Mercury		0.09	mg/kg	0.05	7471	11/25/93
ORGANICS						
PCB		Not detected	mg/kg	0.3	8080	11/17/93



Analytical Laboratory Report
City of Kalamazoo
November 29, 1993

FECL #:	AA09566					
TAG:	8 DSE Cake DSE30893	Results	Units	MDL	Method	Date
INORGANICS						
Total Solids	57.1	%	1	160.3		11/09/93
METALS						
Mercury	0.13	mg/kg	0.05	7471		11/25/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		11/17/93

FECL #:	AA09567					
TAG:	9 Incinerator Ash IA30893	Results	Units	MDL	Method	Date
INORGANICS						
Total Solids	99.9	%	1	160.3		11/09/93
METALS						
Mercury	Not detected	mg/kg	0.05	7471		11/25/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		11/17/93

Note: Methods may be modified for improved performance.

A handwritten signature in black ink, appearing to read "V.F. Murshak".

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

No 002574

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

Gwen Jones /Operators

PURPOSE OF ANALYSIS:

PCB + Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary eff.	TE 30993	1-1L	11/5/93			H	KWRP PCB
2	Tertiary eff.	TE 30993	1-125ml	11/5/93			H	KWRP Hg
3	MUN. Pr. mary INF.	MPI 30993	1-1L	11/5/93			H	KWRP PCB
4	MUN. Primary INF.	MPI 30993	1-125ml	11/5/93			H	" "
5	Industrial INF.	II 30993	1-1L	11/5/93			H	" "
6	Industrial INF.	II 30993	1-125ml	11/5/93			H	" "
7	Belt Press Cake	BPC 30893	1 - 8oz	11/4/93			H	" "
8	DSE Cake	DSE 30893	1 - 8oz	11/4/93			H	" "
9	Incinerator Ash	FA 30893	1 - 8oz	11/4/93			H	" "

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Mensing	11/8/93 9:00 AM	P. Googen	11/8/93 9:00 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		Cuong	11/9/93 6:00				

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

November 29, 1993

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 11/08/93 18:00
PO #: 056756

FECL #: AA09568
Tag: 1 & 2 Tertiary Eff. TE31293
Date/Time Collected: 11/08/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA09569
Tag: 3 & 4 Industrial Inf. II31293
Date/Time Collected: 11/08/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA09570
Tag: 5 & 6 Mun. Primary Inf. MPI31293
Date/Time Collected: 11/08/93
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved



FECL #: AA09571

Tag: 7 Belt Press Cake BPC31093

Date/Time Collected: 11/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA09572

Tag: 8 DSE Cake DSE31093

Date/Time Collected: 11/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA09573

Tag: 9 Incinerator Ash IA31093

Date/Time Collected: 11/06/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
November 29, 1993

FECL #:	AA09568	1 & 2 Tertiary Eff. TE31293		MDL	Method	Date
TAG:	Analysis	Results	Units			
METALS	Mercury	Not detected	mg/l	0.0005	245.1	11/25/93
ORGANICS	PCB	Not detected	mg/l	0.0001	608	11/17/93

FECL #:	AA09569	3 & 4 Industrial Inf. II31293		MDL	Method	Date
TAG:	Analysis	Results	Units			
METALS	Mercury	Not detected	mg/l	0.0005	245.1	11/25/93
ORGANICS	PCB	Not detected	mg/l	0.0001	608	11/17/93

FECL #:	AA09570	5 & 6 Mun. Primary Inf. MPI31293		MDL	Method	Date
TAG:	Analysis	Results	Units			
METALS	Mercury	Not detected	mg/l	0.0005	245.1	11/25/93
ORGANICS	PCB	Not detected	mg/l	0.0001	608	11/17/93

FECL #:	AA09571	7 Belt Press Cake BPC31093		MDL	Method	Date
TAG:	Analysis	Results	Units			
INORGANICS	Total Solids	29.8	%	1	160.3	11/09/93
METALS	Mercury	0.15	mg/kg	0.05	7471	11/25/93
ORGANICS	PCB	Not detected	mg/kg	0.3	8080	11/17/93



Analytical Laboratory Report
City of Kalamazoo
November 29, 1993

FECL #:	AA09572	Results	Units	MDL	Method	Date
TAG:	8 DSE Cake DSE31093					
INORGANICS						
Total Solids	56.9	%	1	160.3	160.3	11/09/93
METALS						
Mercury	0.14	mg/kg	0.05	7471	7471	11/25/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080	8080	11/17/93

FECL #:	AA09573	Results	Units	MDL	Method	Date
TAG:	9 Incinerator Ash IA31093					
INORGANICS						
Total Solids	100.0	%	1	160.3	160.3	11/09/93
METALS						
Mercury	Not detected	mg/kg	0.05	7471	7471	11/25/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080	8080	11/17/93

Note: Methods may be modified for improved performance.

A handwritten signature in black ink, appearing to read "V.F. Murshak".

Violetta F. Murshak
Laboratory Manager



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

January 3, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: G. JONES
Date/Time Submitted: 12/14/93 12:40
PO #: 056756

FECL #: AA10535

Tag: 1 Tertiary Eff. TE34793
Date/Time Collected: 12/13/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA10536

Tag: 2 Municipal Primary Inf. MPI34793
Date/Time Collected: 12/13/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA10537

Tag: 3 Industrial Inf. II34793
Date/Time Collected: 12/13/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved



FECL #: AA10538

Tag: 4 Belt Press Cake BPC34493
Date/Time Collected: 12/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA10539

Tag: 5 DSE Press Cake DSE34493
Date/Time Collected: 12/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration

FECL #: AA10540

Tag: 6 Incinerator Ash IA34493
Date/Time Collected: 12/10/93
Matrix: Solid
Container(s): 8 oz. Glass
Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
January 3, 1994

FECL #:	AA10535					
TAG:	1 Tertiary	Eff.	TE34793			
Analysis		Results		Units	MDL	Method
METALS						
Mercury		Not detected		mg/l	0.0005	245.1
ORGANICS						
PCB		Not detected		mg/l	0.0001	608
						12/27/93

FECL #:	AA10536					
TAG:	2 Municipal	Primary Inf.	MPI34793			
Analysis		Results		Units	MDL	Method
METALS						
Mercury		Not detected		mg/l	0.0005	245.1
ORGANICS						
PCB		Not detected		mg/l	0.0001	608
						12/27/93

FECL #:	AA10537					
TAG:	3 Industrial	Inf.	II34793			
Analysis		Results		Units	MDL	Method
METALS						
Mercury		Not detected		mg/l	0.0005	245.1
ORGANICS						
PCB		Not detected		mg/l	0.0001	608
						12/27/93

FECL #:	AA10538					
TAG:	4 Belt Press Cake	BPC34493				
Analysis		Results		Units	MDL	Method
INORGANICS						
Total Solids		30.1		%	1	160.3
METALS						
Mercury		0.06		mg/kg	0.05	7471
ORGANICS						
PCB		Not detected		mg/kg	0.3	8080
						12/27/93



Analytical Laboratory Report
City of Kalamazoo
January 3, 1994

FECL #:	AA10539	TAG:	5 DSE Press Cake	DSE34493		
Analysis	Results		Units		MDL	Method
INORGANICS						
Total Solids	56.3		%		1	160.3
METALS						
Mercury	0.10		mg/kg		0.05	7471
ORGANICS						
PCB	Not detected		mg/kg		0.3	8080

FECL #:	AA10540	TAG:	6 Incinerator Ash	IA34493		
Analysis	Results		Units		MDL	Method
INORGANICS						
Total Solids	99.9		%		1	160.3
METALS						
Mercury	Not detected		mg/kg		0.05	7471
ORGANICS						
PCB	Not detected		mg/kg		0.3	8080

Note: Methods may be modified for improved performance.

A handwritten signature in black ink, appearing to read "V.F. Murshak, P.E." or a similar variation.

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 002592

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

[Signature] G. Jones / O'Rey

PcB & Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME 12/13/93 2:05 PM	RECEIVED BY: (Signature)	DATE/TIME 12/13/93 2:05 PM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME 12/14/93 12:40	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

January 3, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 12/09/93 11:30
PO #: 056756

FECL #: AA10387

Tag: 1 Tertiary Eff. TE34393
Date/Time Collected: 12/09/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3
*Laboratory Preserved

FECL #: AA10388

Tag: 2 Industrial Inf. II34393
Date/Time Collected: 12/09/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3
*Laboratory Preserved

FECL #: AA10389

Tag: 3 Mun. Primary Inf. MPI34393
Date/Time Collected: 12/09/93
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3
*Laboratory Preserved



FECL #: AA10390

Tag: 4 Belt Press Cake BPC34293

Date/Time Collected: 12/08/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA10391

Tag: 5 DSE Press Cake DSE34293

Date/Time Collected: 12/08/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA10392

Tag: 6 Incinerator Ash IA34293

Date/Time Collected: 12/08/93

Matrix: Solid

Container(s): 8 oz. Glass

Preservation: None/Refrigeration

FECL #: AA10393

Tag: 7 Tertiary Eff. TE34293

Date/Time Collected: 12/08/93

Matrix: Liquid

Container(s): Amber Liter

Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
January 3, 1994

FECL #:	AA10387	TAG: Analysis	1 Tertiary Results	Units	MDL	Method	Date
METALS							
Mercury			Not detected	mg/l	0.0005	245.1	12/29/93
ORGANICS							
PCB			Not detected	mg/l	0.0001	608	12/16/93

FECL #:	AA10388	TAG: Analysis	2 Industrial Inf. Results	Units	MDL	Method	Date
METALS							
Mercury			Not detected	mg/l	0.0005	245.1	12/29/93
ORGANICS							
PCB			Not detected	mg/l	0.0001	608	12/16/93

FECL #:	AA10389	TAG: Analysis	3 Mun. Primary Inf. Results	Units	MDL	Method	Date
METALS							
Mercury			Not detected	mg/l	0.0005	245.1	12/29/93
ORGANICS							
PCB			Not detected	mg/l	0.0001	608	12/16/93

FECL #:	AA10390	TAG: Analysis	4 Belt Press Cake Results	Units	MDL	Method	Date
INORGANICS							
Total Solids			34.1	%	1	160.3	12/09/93
METALS							
Mercury			0.07	mg/kg	0.05	7471	12/29/93
ORGANICS							
PCB			Not detected	mg/kg	0.3	8080	12/16/93



Analytical Laboratory Report
City of Kalamazoo
January 3, 1994

FECL #:	AA10391	5 DSE Press Cake DSE34293		MDL	Method	Date
TAG:		Results	Units			
Analysis						

INORGANICS

Total Solids 53.0 % 1 160.3 12/09/93

METALS

Mercury 0.08 mg/kg 0.05 7471 12/29/93

ORGANICS

PCB Not detected mg/kg 0.3 8080 12/16/93

FECL #:	AA10392	6 Incinerator Ash IA34293		MDL	Method	Date
TAG:		Results	Units			
Analysis						

INORGANICS

Total Solids 99.9 % 1 160.3 12/09/93

METALS

Mercury Not detected mg/kg 0.05 7471 12/29/93

ORGANICS

PCB Not detected mg/kg 0.3 8080 12/16/93

FECL #:	AA10393	7 Tertiary Eff. TE34293		MDL	Method	Date
TAG:		Results	Units			
Analysis						

ORGANICS

Naphthalene Not detected mg/l 0.005 8270 12/10/93



Analytical Laboratory Report
City of Kalamazoo
January 3, 1994

FECL #'s: AA10387 - AA10393

Note: Methods may be modified for improved performance.

A handwritten signature in black ink, appearing to read "V.F. Murshak, L.M.", is positioned above the printed title.

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 002590

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

G. Jones /Operators

PURPOSE OF ANALYSIS:

PCB + Hg

ITEM NUMBER FECL#	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	CMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS		
10387	TERTIARY Effluent	TE34393	1-1C	12/9/93			H	KWRP	PCB + Hg	
10388	Industrial INF	II34393	1-1C	12/9/93			H	KWRP	PCB + Hg	
10389	MUN. Pr. mary INF	MP34393	1-1C	12/9/93			H	KWRP	PCB + Hg	
10390	Belt Press cake	BPC34293	1-8oz	12/8/93			H	" " "	" "	
10391	DSE Press cake	DSE34293	1-8oz	12/8/93			H	" " "	" "	
10392	INCINERATOR Ash	IA34293	1-8oz	12/8/93			H	" " "	" "	
10393	TERTIARY Eff.	TE34293	1-1C	12/8/93			C	" "	Naphthalene	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

July 16, 1993

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Attention: Mr. Ken Leanin

Analytical Laboratory Report

Project: PCB's/Dioxin's

Samples collected by: MK
Date/Time Submitted: 06/21/93 17:00
PO #: 056756

FECL #: AA04738
Tag: 2 DSE Filter PressCake Leachte FPC097932
Date/Time Collected: 04/07/93
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration

FECL #: AA04738
Tag: 2 DSE Filter PressCake Leachte FPC097932
Date/Time Collected: 04/07/93
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
July 16, 1993

FECL #: AA04737 *Incinerator Ash Speachate*
TAG: 2 DSE Filter PressCake Leachte FPC097932

Analysis	Results	Units	MDL	Method
ORGANICS				
Dioxin	Not detected	mg/l	0.01	625M
PCB	Not detected	mg/l	0.0001	608

FECL #: AA04738
TAG: 2 DSE Filter PressCake Leachte FPC097932

Analysis	Results	Units	MDL	Method
ORGANICS				
Dioxin	Not detected	mg/l	0.01	625M
PCB	Not detected	mg/l	0.0001	608

Note: Methods may be modified for improved performance.

V.F. Murshak, LK

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 001621

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

OPERATIONS

PURPOSE OF ANALYSIS

PCBs / Dioxin's

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	6/21/93 10:10 AM		6/23/93 10:10 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
			6/21/93 5:00p				

REMARKS:

S: Report Results to Ken Learin



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

January 4, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB/Dioxin

Samples collected by: M. KNOP
Date/Time Submitted: 12/20/93 16:30
PO #: 056756

FECL #: AA10951
Tag: 1 FPC 27293-L
Date/Time Collected: 09/28/93
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration

FECL #: AA10952
Tag: 2 INA 27293-L
Date/Time Collected: 09/28/93
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
January 4, 1994

FECL #:	AA10951	TAG:	1 FPC 27293-L	Analysis	Results	Units	MDL	Method	Date
ORGANICS									
Dioxin				Not detected	mg/l	0.01	625M		01/03/94
PCB				Not detected	mg/l	0.0001	608		12/27/93

FECL #:	AA10952	TAG:	2 INA 27293-L	Analysis	Results	Units	MDL	Method	Date
ORGANICS									
Dioxin				Not detected	mg/l	0.01	625M		01/03/94
PCB				Not detected	mg/l	0.0001	608		12/27/93

Note: Methods may be modified for improved performance.

V. F. Murshak (EFUN)

Violetta F. Murshak
Laboratory Manager

CHAIN OF CUSTODY RECORD

Nº 002603 •

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

January 27, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 01/06/94 17:30
PO #: 056756

FECL #: AA11312

Tag: 1 & 2 Tertiary Eff. TE00694
Date/Time Collected: 01/06/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA11313

Tag: 3 & 4 Industrial Inf. II00694
Date/Time Collected: 01/06/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA11314

Tag: 5 & 6 Municipal Primary Inf. MPI00694
Date/Time Collected: 01/06/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA11315
Tag: 7 Belt Press Cake BPC00694
Date/Time Collected: 01/06/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA11316
Tag: 8 DSE Press Cake BPC00694
Date/Time Collected: 01/06/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA11317
Tag: 9 Incinerator Ash INA00694
Date/Time Collected: 01/06/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 January 27, 1994

FECL #:	AA11312	1 & 2 Tertiary Eff. TE00694			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0005	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608

FECL #:	AA11313	3 & 4 Industrial Inf. II00694			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0005	245.1
ORGANICS					
PCB		Not detected	mg/l	0.001	608

FECL #:	AA11314	5 & 6 Municipal Primary Inf. MPI00694			
TAG:		Results	Units	MDL	Method
Analysis					Date
METALS					
Mercury		Not detected	mg/l	0.0005	245.1
ORGANICS					
PCB		Not detected	mg/l	0.0001	608

FECL #:	AA11315	7 Belt Press Cake BPC00694			
TAG:		Results	Units	MDL	Method
Analysis					Date
INORGANICS					
Total Solids		27.3	%	1	160.3
METALS					
Mercury		Not detected	mg/kg	0.05	7471
ORGANICS					
PCB		Not detected	mg/kg	0.7	8080

Analytical Laboratory Report
 City of Kalamazoo
 January 27, 1994

<u>FECL #:</u>	AA11316			<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>TAG:</u>	8 DSE Press Cake BPC00694					
<u>Analysis</u>	<u>Results</u>	<u>Units</u>				
INORGANICS						
Total Solids	57.1	%	1	160.3		01/10/93
METALS						
Mercury	0.13	mg/kg	0.05	7471		01/25/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		01/13/94

<u>FECL #:</u>	AA11317			<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>TAG:</u>	9 Incinerator Ash INA00694					
<u>Analysis</u>	<u>Results</u>	<u>Units</u>				
INORGANICS						
Total Solids	99.9	%	1	160.3		01/10/93
METALS						
Mercury	Not detected	mg/kg	0.05	7471		01/25/93
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		01/13/94

Note: Methods may be modified for improved performance.
 Results reported on a dry weight basis, where applicable.

Violetta F. Murshak
 Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002610

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)	<i>J. Jones / Open.</i>				PURPOSE OF ANALYSIS: <i>PCB + Hg</i>			
--------------------------	-------------------------	--	--	--	---	--	--	--

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS	
1	Tertiary eff	TE00694	1-1L	1/6/94			H	KWRP	PCB
2	Tertiary eff	TE00694	1-125ml	1/6/94			H		Hg
3	Industrial INF	II00694	1-1L	1/6/94			H		PCB
4	Industrial INF	II00694	1-125ml	1/6/94			H		Hg
5	Municipal Primary INF	MP100694	1-1L	1/6/94			H		PCB
6	Municipal Primary INF	MP100694	1-125ml	1/6/94			H		Hg
7	Belt Press Cake	BPC00694	1-40oz	1/6/94			H		PCB + Hg
8	DSE Press Cake	DSE00694	1-40oz	1/6/94			H		PCB + Hg
9	Incinerator Ash	INA00694	1-40oz	1/6/94			H	↓	PCB + Hg

1 RELINQUISHED BY: (Signature) <i>Roger J. Fennay</i>	DATE/TIME 1-6-94 11:17 AM	RECEIVED BY: (Signature) <i>P. Gough</i>	DATE/TIME 1/6/94 11:17 PM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature) <i>C. Gough</i>	DATE/TIME 1/6/94 5:30	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

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January 27, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. JONES
Date/Time Submitted: 01/10/94 18:47
PO #: 056756

FECL #: AA11503

Tag: 1 & 2 Tertiary Eff. TE01094
Date/Time Collected: 01/10/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11504

Tag: 3 & 4 Industrial Influent II01094
Date/Time Collected: 01/10/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11505

Tag: 5 & 6 Municipal Primary Inf. MPI01094
Date/Time Collected: 01/10/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11506
Tag: 7 DSE Press Cake DSE00994
Date/Time Collected: 01/09/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA11507
Tag: 8 Belt Press Cake BPC01094
Date/Time Collected: 01/10/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA11508
Tag: 9 Incinerator Ash INA01094
Date/Time Collected: 01/10/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 January 27, 1994

<u>FECL #:</u>	AA11503	<u>1 & 2 Tertiary Eff. TE01094</u>					
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
METALS							
Mercury			Not detected	mg/l	0.0005	200.8	01/25/94

<u>FECL #:</u>	AA11504	<u>3 & 4 Industrial Influent II01094</u>					
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
METALS							
Mercury			Not detected	mg/l	0.0005	200.8	01/25/94

<u>FECL #:</u>	AA11505	<u>5 & 6 Municipal Primary Inf. MPI01094</u>					
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
METALS							
Mercury			Not detected	mg/l	0.0005	200.8	01/25/94

<u>FECL #:</u>	AA11506	<u>7 DSE Press Cake DSE00994</u>					
<u>TAG:</u>		<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
INORGANICS							
Total Solids			70.6	%	1	160.3	01/12/94
METALS							
Mercury			0.05	mg/kg	0.05	6020	01/25/94
ORGANICS							
PCB			Not detected	mg/kg	0.3	8080	01/18/94

Analytical Laboratory Report
 City of Kalamazoo
 January 27, 1994

<u>FECL #:</u>	AA11507				
<u>TAG:</u>	8 Belt Press Cake BPC01094				
<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
INORGANICS					
Total Solids	26.4	%	1	160.3	01/12/94
METALS					
Mercury	Not detected	mg/kg	0.05	6020	01/25/94
ORGANICS					
PCB	Not detected	mg/kg	0.5	8080	01/19/94

<u>FECL #:</u>	AA11508				
<u>TAG:</u>	9 Incinerator Ash INA01094				
<u>Analysis</u>	<u>Results</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
INORGANICS					
Total Solids	100	%	1	160.3	01/12/94
METALS					
Mercury	Not detected	mg/kg	0.05	6020	01/25/94
ORGANICS					
PCB	Not detected	mg/kg	0.3	8080	01/17/94

Note: Methods may be modified for improved performance.
 Results reported on a dry weight basis, where applicable.

Violetta F. Murshak
 Laboratory Director

CHAIN OF CUSTODY RECORD

No 002611

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

J. Jones / Operator

PURPOSE OF ANALYSIS:

PCB + Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Eff	TE01094	1-1C	1/10/94			N	
2	Tertiary ZFC	TE01094	1-125 ml	1/10/94			H	
3	Industrial Influent	II01094	1-1C	1/10/94			H	
4	Industrial Influent	II01094	1-125 ml	1/10/94			H	
5	Municipal Primary Inf	MPI01094	1-1C	1/10/94			H	
6	Municipal Primary Inf.	MPI01094	1-125 ml	1/10/94			H	
7	DSE Press cake	DSE00994	1-40oz	1/9/94			H	
8	Belt Press cake	BPC01094	1-40oz	1/10/94			H	
9	Incinerator Ash	INA01094	1-40oz	1/10/94			H	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

February 4, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB/DIOXIN

Samples collected by: M. KNOP
Date/Time Submitted: 01/31/94 15:20
PO #: 056756

FECL #: AA11759
Tag: 1 DSE01994-L
Date/Time Collected: 01/19/94
Sample Tag Cont'd: DSE-Filter Press Cake Leachate
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration

FECL #: AA11760
Tag: 2 INA01994-L
Date/Time Collected: 01/19/94
Sample Tag Cont'd: Incinerator Ash Leachate
Matrix: Liquid
Container(s): 4-Amber Liter
Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
February 4, 1994

FECL #:	AA11759	TAG:	1 DSE01994-L	Analysis	Results	Units	MDL	Method	Date
ORGANICS									
PCB				Dioxin	Not detected	mg/l	0.0001	608	02/03/94
					Not detected	mg/l	0.01	625M	

FECL #:	AA11760	TAG:	2 INA01994-L	Analysis	Results	Units	MDL	Method	Date
ORGANICS									
PCB				Dioxin	Not detected	mg/l	0.0001	608	02/03/94
					Not detected	mg/l	0.01	625M	

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.


Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002629

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

MARTIN KNOP

PURPOSE OF ANALYSIS:

PCB/Dioxin

11759

11760

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	DSE 019 94-L		4-1 LITER	1/19/94			✓	DSE - FILTER PRESS CAKE LEACHATE
2	INA 019 94-L		4-1 Liter	1/19/94			✓	INCINERATOR ASH LEACHATE
ASTM-A LEACHATE PROCEDURE								
PERFORMED IN KALAMAZOO DPU TRACE								
METALS LABORATORY.								
1 RELINQUISHED BY: (Signature)		DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3	RELINQUISHED BY: (Signature)	DATE/TIME	DATE/TIME
		1/31/94 11:20 AM		1/31/94 11:20 AM				
2 RELINQUISHED BY: (Signature)		DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4	RELINQUISHED BY: (Signature)	DATE/TIME	DATE/TIME
				1/31/94 3:20				

REMARKS:

REPORT RESULTS TO KEN LEANN & MARTY KNOB



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

February 18, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 02/07/94 15:00
PO #: 056756

FECL #: AA11891

Tag: 1 & 2 Tertiary Eff. TE03894
Date/Time Collected: 02/07/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11892

Tag: 3 & 4 Industrial Inf. II03894
Date/Time Collected: 02/07/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11893

Tag: 5 & 6 Mun. Primary Inf. MPI03894
Date/Time Collected: 02/07/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11894
Tag: 7 Belt Press Cake BPC03794
Date/Time Collected: 02/06/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA11895
Tag: 8 DSE Press Cake DSE03794
Date/Time Collected: 02/06/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 February 18, 1994

<u>FECL #:</u>	AA11891				
<u>TAG:</u>	1 & 2 Tertiary Eff. TE03894		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>Analysis</u>	<u>Results</u>	<u>Units</u>			
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	02/15/94
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	02/14/94
<u>FECL #:</u>	AA11892				
<u>TAG:</u>	3 & 4 Industrial Inf. II03894		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>Analysis</u>	<u>Results</u>	<u>Units</u>			
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	02/15/94
ORGANICS					
PCB	Not detected	mg/l	0.001 *	608	02/16/94
<u>FECL #:</u>	AA11893				
<u>TAG:</u>	5 & 6 Mun. Primary Inf. MPI03894		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>Analysis</u>	<u>Results</u>	<u>Units</u>			
METALS					
Mercury	Not detected	mg/l	0.0005	245.1	02/15/94
ORGANICS					
PCB	Not detected	mg/l	0.0001	608	02/14/94
<u>FECL #:</u>	AA11894				
<u>TAG:</u>	7 Belt Press Cake BPC03794		<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>Analysis</u>	<u>Results</u>	<u>Units</u>			
INORGANICS					
Total Solids	47.5	%	1	160.3	02/07/94
METALS					
Mercury	0.05	mg/kg	0.05	7471	02/15/94
ORGANICS					
PCB	Not detected	mg/kg	0.3	8080	02/16/94

* Higher Detection Limit Due to Matrix Interferences

Analytical Laboratory Report
City of Kalamazoo
February 18, 1994

FECL #:	AA11895 8 DSE Press Cake DSE03794			MDL	Method	Date
TAG: <u>Analysis</u>	Results	Units				
INORGANICS						
Total Solids	58.3	%	1	160.3		02/07/94
METALS						
Mercury	0.15	mg/kg	0.05	7471		02/15/94
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		02/14/94

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.



Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002635

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS:

PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
Mensinger	3/7/94 9:53 AM	Paul Goering	2/7/94 9:53 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		Cronin	3/7/94 3:00				

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

February 18, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 02/10/94 14:00
PO #: 056756

FECL #: AA11951

Tag: 1 & 2 Tertiary Eff. TE04194
Date/Time Collected: 02/10/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11952

Tag: 3 & 4 Industrial Inf. II04194
Date/Time Collected: 02/10/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11953

Tag: 5 & 6 Mun. Primary Inf. MPI04194
Date/Time Collected: 02/10/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA11954

Tag: 7 Belt Press Cake BPC03994

Date/Time Collected: 02/08/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA11955

Tag: 8 DSE Press Cake DSE03994

Date/Time Collected: 02/08/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 February 18, 1994

<u>FECL #:</u>	AA11951	<u>TAG:</u> 1 & 2 Tertiary Eff. TE04194		<u>Analysis</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>METALS</u>		<u>Results</u>	<u>Units</u>				
MERCURY		Not detected	mg/l		0.0005	245.1	02/15/94
ORGANICS							
PCB		Not detected	mg/l		0.0001	608	02/15/94

<u>FECL #:</u>	AA11952	<u>TAG:</u> 3 & 4 Industrial Inf. II04194		<u>Analysis</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>METALS</u>		<u>Results</u>	<u>Units</u>				
MERCURY		Not detected	mg/l		0.0005	245.1	02/15/94
ORGANICS							
PCB		Not detected	mg/l		0.01 *	608	02/18/94

<u>FECL #:</u>	AA11953	<u>TAG:</u> 5 & 6 Mun. Primary Inf. MPI04194		<u>Analysis</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>METALS</u>		<u>Results</u>	<u>Units</u>				
MERCURY		Not detected	mg/l		0.0005	245.1	02/15/94
ORGANICS							
PCB		Not detected	mg/l		0.0001	608	02/16/94

<u>FECL #:</u>	AA11954	<u>TAG:</u> 7 Belt Press Cake BPC03994		<u>Analysis</u>	<u>MDL</u>	<u>Method</u>	<u>Date</u>
<u>INORGANICS</u>		<u>Results</u>	<u>Units</u>				
Total Solids		42.1	%		1	160.3	02/11/94
METALS							
MERCURY		0.07	mg/kg		0.05	7471	02/15/94
ORGANICS							
PCB		Not detected	mg/kg		1 *	8080	02/18/94

* Higher Detection Limit Due to Matrix Interferences

Analytical Laboratory Report
City of Kalamazoo
February 18, 1994

FECL #:	AA11955	8 DSE Press Cake	DSE03994			
TAG:		Results	Units	MDL	Method	Date
Analysis						
INORGANICS						
Total Solids	59.7	%	1	160.3	160.3	02/11/94
METALS						
Mercury	0.12	mg/kg	0.05	7471	7471	02/15/94
ORGANICS						
PCB	Not detected	mg/kg	0.3	8080	8080	02/16/94

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.



Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002638

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

L. Taylor

PURPOSE OF ANALYSIS:

PCB + Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS		
1	TERKor Eff	TE04094	1-1C	10/94			H	KWRP		
2	Tenkateff	TE04094	1-125mL	10/94			H	" "		
3	Industrial In	II04094	1-1C	10/94			H	" "		
4	Industrial In	II04094	1-125mL	10/94			H	" "		
5	Mun. Kilnay In	MPIC04094	1-1C	10/94			H	" "		
6	Mun. Kilnay In	MPIC04094	1-125mL	10/94			H	" "		
7	PSE Press Cake	PSE03094	1-40mL	10/94			H	" "		
8	PSE Press Cake	PSE03094	1-40mL	10/94			H	" "		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
L. Taylor	10/94	11:00	Paul Hoenger	10/94	11:06		
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		Cuong Lin	10/94	2:00			

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 14, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 02/24/94 16:00
PO #: 056756

FECL #: AA12127

Tag: 1 Incinerator Ash IA05394
Date/Time Collected: 02/23/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA12128

Tag: 2 Incinerator Ash IA05494
Date/Time Collected: 02/24/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
City of Kalamazoo
March 14, 1994

FECL #: TAG: Analysis	AA12127 1 Incinerator Ash IA05394	Results	Units	MDL	Method	Date
INORGANICS						
Total Solids	99.9	%	1	160.3		02/25/94

METALS						
Mercury	Not detected	mg/kg	0.05	7471		03/13/94

ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		02/28/94

FECL #: TAG: Analysis	AA12128 2 Incinerator Ash IA05494	Results	Units	MDL	Method	Date
INORGANICS						
Total Solids	99.9	%	1	160.3		02/25/94

METALS						
Mercury	Not detected	mg/kg	0.05	7471		03/13/94

ORGANICS						
PCB	Not detected	mg/kg	0.3	8080		02/28/94

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.



Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002655

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)		PURPOSE OF ANALYSIS:
		PCB + Hg

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
KMessenger	2/24/94 11:02 AM	R. Goren	2-24-94 11:02 AM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		Cuong Ph	2/24/94 4:00				

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 24, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 03/03/94 14:20
PO #: 056756

FECL #: AA12184

Tag: 1 & 2 Municipal Primary Inf. MPI06294
Date/Time Collected: 03/03/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA12185

Tag: 3 & 4 Industrial Inf. PI06294
Date/Time Collected: 03/03/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA12186

Tag: 5 & 6 Tertiary Eff. TE06294
Date/Time Collected: 03/03/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA12187
Tag: 7 Belt Press Cake BPC06194
Date/Time Collected: 03/02/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA12188
Tag: 8 DSE Press Cake DSE06194
Date/Time Collected: 03/02/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

FECL #: AA12189
Tag: 9 Incinerator Ash INA06194
Date/Time Collected: 03/02/94
Matrix: Solid
Container(s): 4 oz. Glass
Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 March 24, 1994

FECL #:	AA12184				
TAG:	1 & 2 Municipal Primary Inf.	MPI06294	MDL	Method	Date
Analysis	Results	Units			
Metals					
Mercury	Not detected	mg/l	0.0005	245.1	03/17/94
Organics					
PCB	Not detected	mg/l	0.0001	608	03/21/94

FECL #:	AA12185				
TAG:	3 & 4 Industrial Inf.	II06294	MDL	Method	Date
Analysis	Results	Units			
Metals					
Mercury	Not detected	mg/l	0.0005	245.1	03/17/94
Organics					
PCB	Not detected	mg/l	0.001 *	608	03/21/94

FECL #:	AA12186				
TAG:	5 & 6 Tertiary Eff.	TE06294	MDL	Method	Date
Analysis	Results	Units			
Metals					
Mercury	Not detected	mg/l	0.0005	245.1	03/17/94
Organics					
PCB	Not detected	mg/l	0.0001	608	03/21/94

FECL #:	AA12187				
TAG:	7 Belt Press Cake	BPC06194	MDL	Method	Date
Analysis	Results	Units			
Inorganics					
Total Solids	39.5	%	1	160.3	03/04/94
Metals					
Mercury	0.07	mg/kg	0.05	7471	03/17/94
Organics					
PCB	Not detected	mg/kg	0.5 *	8080	03/22/94

* Higher Detection Limit Due to Matrix Interferences

Analytical Laboratory Report
City of Kalamazoo
March 24, 1994

FECL #:	AA12188			MDL	Method	Date
TAG: Analysis	8	DSE Press Cake	DSE06194			
Inorganics						
Total Solids	57.4	%	1	160.3		03/04/94
Metals						
Mercury	0.13	mg/kg	0.05	7471		03/17/94
Organics						
PCB	Not detected	mg/kg	0.3	8080		03/22/94

FECL #:	AA12189			MDL	Method	Date
TAG: Analysis	9	Incinerator Ash	INA06194			
Inorganics						
Total Solids	100.0	%	1	160.3		03/04/94
Metals						
Mercury	Not detected	mg/kg	0.05	7471		03/17/94
Organics						
PCB	Not detected	mg/kg	0.3	8080		03/22/94

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.

Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002664

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)*M. Taylor*

PURPOSE OF ANALYSIS:

PCB + Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Municipal Primary Inf	MP106294	1 - 1L	3/3/94			✓	KWRP
2	Municipal Primary Inf	MP106294	1 - 1 1/25 ml	3/3/94			✓	" "
3	Industrial Inf	II06294	1 - 1L	3/3/94			✓	" "
4	Industrial Inf.	II06294	1 - 1 1/25 ml	3/3/94			✓	" "
5	Tertiary Eff	TE06294	1 - 1L	3/3/94			✓	" "
6	Tertiary Eff.	TE06294	1 - 1 1/25 ml	3/3/94			✓	" "
7	Belt Press Cake	BPC06194	1 - 4oz	3/2/94			✓	" "
8	DSE Press Cake	DSE06194	1 - 4oz	3/2/94			✓	" "
9	Incinerator Ash	INA06194	1 - 4oz	3/2/94			✓	" "

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>M Taylor</i>	3/3/94	<i>Hoffman</i>	3/3/94	<i>S. 3</i>			
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		<i>C. Murphy</i>	3/3/94	2:20			

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

March 24, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 03/07/94 12:30
PO #: 056756

FECL #: AA12217

Tag: 1 Tertiary Eff. TE06694
Date/Time Collected: 03/07/94
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA12218

Tag: 2 Mun. Primary Inf. MPI06694
Date/Time Collected: 03/07/94
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA12219

Tag: 3 Industrial Inf. II06694
Date/Time Collected: 03/07/94
Matrix: Liquid
Container(s): Amber Liter
Preservation: None/Refrigeration, HNO3*
*Laboratory Preserved

FECL #: AA12220

Tag: 4 DSE Press Cake DSE06594

Date/Time Collected: 03/06/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA12221

Tag: 5 Belt Press Cake BPC06594

Date/Time Collected: 03/06/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA12222

Tag: 6 Incinerator Ash INA06594

Date/Time Collected: 03/06/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

Analytical Laboratory Report
 City of Kalamazoo
 March 24, 1994

FECL #:	AA12217		Eff. TE06694	Units	MDL	Method	Date
TAG:	1 Tertiary	Analysis					
Metals							
Mercury			Not detected	mg/l	0.0005	245.1	03/17/94

FECL #:	AA12218		2 Mun. Primary Inf. MPI06694	Units	MDL	Method	Date
TAG:	Analysis	Results					
Metals							
Mercury			Not detected	mg/l	0.0005	245.1	03/17/94

FECL #:	AA12219		3 Industrial Inf. II06694	Units	MDL	Method	Date
TAG:	Analysis	Results					
Metals							
Mercury			Not detected	mg/l	0.0005	245.1	03/17/94

FECL #:	AA12220		4 DSE Press Cake DSE06594	Units	MDL	Method	Date
TAG:	Analysis	Results					
Inorganics							
Total Solids		59.2	%	1	160.3		03/08/94
Metals							
Mercury		0.10	mg/kg	0.05	7471		03/17/94
Organics							
PCB		Not detected	mg/kg	0.3	8080		03/22/94

* Higher Detection Limit Due to Matrix Interferences

Analytical Laboratory Report
 City of Kalamazoo
 March 24, 1994

FECL #:	AA12221			MDL	Method	Date
TAG:	5 Belt Press Cake	BPC06594	Results			
Inorganics						
Total Solids	31.8	%		1	160.3	03/08/94
Metals						
Mercury	Not detected	mg/kg		0.05	7471	03/17/94
Organics						
PCB	Not detected	mg/kg		0.5	*	8080
						03/22/94

FECL #:	AA12222			MDL	Method	Date
TAG:	6 Incinerator Ash	INA06594	Results			
Inorganics						
Total Solids	99.9	%		1	160.3	03/08/94
Metals						
Mercury	Not detected	mg/kg		0.05	7471	03/17/94
Organics						
PCB	Not detected	mg/kg		0.3	8080	03/22/94

* Higher Detection Limit Due to Matrix Interferences

Note: Methods may be modified for improved performance.
 Results reported on a dry weight basis, where applicable.

Violetta F. Murshak
 Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002667

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS:
(Signature)

L. Taylor

PURPOSE OF ANALYSIS:

PCB + Hg

1 RELINQUISHED BY: (Signature) <i>Roger Hensley</i>	DATE/TIME 3-7-94 10:15 AM	RECEIVED BY: (Signature) <i>R. Younger</i>	DATE/TIME 3/7/94 10:45	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature) <i>Cuong Lin</i>	DATE/TIME 3/7/94 12:30	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

April 25, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 04/08/94 18:00
PO #: 056756

FECL #: AA13084
Tag: 1 & 2 MPI Mun. Primary Inf. MPI09694
Date/Time Collected: 04/06/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA13085
Tag: 3 & 4 Tertiary Eff. TE09694
Date/Time Collected: 04/06/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA13086
Tag: 5 & 6 Industrial Inf. II09694
Date/Time Collected: 04/06/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3



FECL #: AA13087

Tag: 7 Belt Press Cake BPC09594

Date/Time Collected: 04/05/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA13088

Tag: 8 DSE Press Cake DSE09594

Date/Time Collected: 04/05/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA13089

Tag: 9 Incinerator Ash INA09594

Date/Time Collected: 04/05/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
April 25, 1994

FECL #:	AA13084	TAG:	1 & 2 MPI Mun. Primary Inf.	MPI09694	Method	Date
Analysis	Results		Units	MDL		
Metals						
Mercury	Not detected		mg/l	0.0005	245.1	04/25/94
Organics						
PCB	Not detected		mg/l	0.0001	608	04/21/94

FECL #:	AA13085	TAG:	3 & 4 Tertiary Eff.	TE09694	Method	Date
Analysis	Results		Units	MDL		
Metals						
Mercury	Not detected		mg/l	0.0005	245.1	04/25/94
Organics						
PCB	Not detected		mg/l	0.0001	608	04/21/94

FECL #:	AA13086	TAG:	5 & 6 Industrial Inf.	II09694	Method	Date
Analysis	Results		Units	MDL		
Metals						
Mercury	Not detected		mg/l	0.0005	245.1	04/25/94
Organics						
PCB	Not detected		mg/l	0.001 *	608	04/21/94

FECL #:	AA13087	TAG:	7 Belt Press Cake	BPC09594	Method	Date
Analysis	Results		Units	MDL		
Inorganics						
Total Solids	31.8		%	1	160.3	04/11/94
Metals						
Mercury	Not detected		mg/kg	0.05	7471	04/25/94
Organics						
PCB	Not detected		mg/kg	0.3	8080	04/22/94

* Higher Detection Limit Due to Matrix Interferences



Analytical Laboratory Report
City of Kalamazoo
April 25, 1994

FECL #:	AA13088 8 DSE Press Cake DSE09594			MDL	Method	Date
TAG:	Analysis	Results	Units			
Inorganics	Total Solids	58.2	%	1	160.3	04/11/94
Metals	Mercury	Not detected	mg/kg	0.05	7471	04/25/94
Organics	PCB	Not detected	mg/kg	0.3	8080	04/22/94

FECL #:	AA13089 9 Incinerator Ash INA09594			MDL	Method	Date
TAG:	Analysis	Results	Units			
Inorganics	Total Solids	99.8	%	1	160.3	04/11/94
Metals	Mercury	Not detected	mg/kg	0.05	7471	04/25/94
Organics	PCB	Not detected	mg/kg	0.3	8080	04/22/94

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.

Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

Nº 002710

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
115 N. Harrison
Kalamazoo, Michigan 49007
16-385-8157

SAMPLERS: (Signature)					PURPOSE OF ANALYSIS:
<i>M. Taylor</i>					<i>PCB + Hg</i>

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	CMP	GARB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	MPIC/MON. Primary Inf	MPIC09694	1-1C	4/6/94				KWRP
2	MPIC/MON. Primary Inf	MPIC09694	1-125ml	4/6/94				
3	TERI. Ory eff	TE09694	1-L	4/6/94				
4	Tent. analy eff	TE09694	1-125ml	4/6/94				
5	Industrial Inf	IIO9694	1-1C	4/6/94				
6	Industrial Inf	IIO9694	1-125ml	4/6/94				
7	Belt Press Calc	BPC09594	1-4oz	4/5/94				
8	DSE Press Calc	DSE09594	1-4oz	4/5/94				
9	Incinerator Ash	INA09594	1-4oz	4/5/94				

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>Steven Taylor</i>	4/8/94 1:42 PM	<i>P. Goerga</i>	4/8/94 1:42 PM				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		<i>Cuong Hu</i>	4/8/94 6:00				

REMARKS:



Fire & Environmental Consulting Laboratories, Inc.

One East Complex 1451 East Lansing Dr., Suite 222 East Lansing, MI 48823
East Lansing (517) 332-0167 Fax (517) 332-6333 Indianapolis (317) 577-8087 Fax (317) 594-9406

April 25, 1994

Attention: Mr. Ken Leanin

City of Kalamazoo
1415 N. Harrison
Kalamazoo, MI 49007

Analytical Laboratory Report

Project: PCB & Hg

Samples collected by: J. TAYLOR
Date/Time Submitted: 04/08/94 18:00
PO #: 056756

FECL #: AA13090
Tag: 1 & 2 Tertiary Eff. TE09794
Date/Time Collected: 04/07/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA13091
Tag: 3 & 4 Mun. Primary Inf. MPI09794
Date/Time Collected: 04/07/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3

FECL #: AA13092
Tag: 5 & 6 Industrial Inf. PI09794
Date/Time Collected: 04/07/94
Matrix: Liquid
Container(s): Amber Liter, 125 mL Plastic
Preservation: None/Refrigeration, HNO3



FECL #: AA13093

Tag: 7 Belt Press Cake BPC09694

Date/Time Collected: 04/06/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA13094

Tag: 8 DSE Press Cake DSE09694

Date/Time Collected: 04/06/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration

FECL #: AA13095

Tag: 9 Incinerator Ash INA09694

Date/Time Collected: 04/06/94

Matrix: Solid

Container(s): 4 oz. Glass

Preservation: None/Refrigeration



Analytical Laboratory Report
City of Kalamazoo
April 25, 1994

FECL #:	AA13090 1 & 2 Tertiary Eff. TE09794				
TAG: Analysis	Results	Units	MDL	Method	Date
Metals Mercury	Not detected	mg/l	0.0005	245.1	04/25/94
Organics PCB	Not detected	mg/l	0.0001	608	04/21/94

FECL #:	AA13091 3 & 4 Mun. Primary Inf. MPI09794				
TAG: Analysis	Results	Units	MDL	Method	Date
Metals Mercury	Not detected	mg/l	0.0005	245.1	04/25/94
Organics PCB	Not detected	mg/l	0.0001	608	04/21/94

FECL #:	AA13092 5 & 6 Industrial Inf. II09794				
TAG: Analysis	Results	Units	MDL	Method	Date
Metals Mercury	Not detected	mg/l	0.0005	245.1	04/25/94
Organics PCB	Not detected	mg/l	0.001 *	608	04/21/94

FECL #:	AA13093 7 Belt Press Cake BPC09694				
TAG: Analysis	Results	Units	MDL	Method	Date
Inorganics Total Solids	29.3	%	1	160.3	04/11/94
Metals Mercury	Not detected	mg/kg	0.05	7471	04/25/94
Organics PCB	Not detected	mg/kg	0.3	8080	04/22/94

* Higher Detection Limit Due to Matrix Interferences



Analytical Laboratory Report
City of Kalamazoo
April 25, 1994

FECL #:	AA13094 8 DSE Press Cake DSE09694					
TAG: Analysis	Results	Units	MDL	Method	Date	
Inorganics						
Total Solids	58.3	%	1	160.3	04/11/94	
Metals						
Mercury	0.06	mg/kg	0.05	7471	04/25/94	
Organics						
PCB	Not detected	mg/kg	0.3	8080	04/21/94	

FECL #:	AA13095 9 Incinerator Ash INA09694					
TAG: Analysis	Results	Units	MDL	Method	Date	
Inorganics						
Total Solids	99.9	%	1	160.3	04/11/94	
Metals						
Mercury	Not detected	mg/kg	0.05	7471	04/25/94	
Organics						
PCB	Not detected	mg/kg	0.3	8080	04/21/94	

Note: Methods may be modified for improved performance.
Results reported on a dry weight basis, where applicable.

A handwritten signature in black ink, appearing to read "V.F. Murshak, Jr." or "V.F. Murshak, M.S.", is positioned below the note.

Violetta F. Murshak
Laboratory Director

CHAIN OF CUSTODY RECORD

No 002711

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS:
(Signature)

J. Taylor

PURPOSE OF ANALYSIS:

PCB & Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	CMP	G R A B	SAMPLE LOCATION, DESCRIPTION & REMARKS
90 1	Tertiary Eff	TE09794	1-1L	4/7/94				KWRP
91 2	Tertiary Eff	TE09794	1-125ml	4/7/94				
91 3	Muni primary JWF	MPI09794	1-1L	4/7/94				
91 4	Muni. Primary JWF	MP109794	1-125ml	4/7/94				
92 5	Industrial JWF	IIO9794	1-1L	4/7/94				
92 6	Industrial	IIO9794	1-125ml	4/7/94				
93 7	Belt Press cake	BPC09694	1-4oz	4/6/94				
94 8	DSE Press cake	DSE09694	1 - 4oz	4/6/94				
95 9	INCINERATOR Ash	INA096	1 - 4oz	4/6/94				

1 RELINQUISHED BY: (Signature)	DATE/TIME 4/8/94 1:42 PM	RECEIVED BY: (Signature)	DATE/TIME 4/8/94 1:42 PM	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME 4/8/94 6:00	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 941291
Client No.: 1046
Date Activated: 5/09/94
Date Promised: 5/23/94
Date Reported: 5/23/94
PO#:

Project Desc.: Analysis of eight samples.

Dear Client:

Attached you will find test results for Project No. 941291. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.

Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941291
Report Date: 5/23/94

Project Desc.: Analysis of eight samples.

Sample No.:941291-01 Type:aqueous Rec'd: 5/09/94
Sampled: 5/05/94 By:G.T. of KWRP
ID: "Mun. Primary Inf., PIN 12594"

Formaldehyde by HPLC 440 ug/L

Sample No.:941291-02 Type:aqueous Rec'd: 5/09/94
Sampled: 5/08/94 By:G.T. of KWRP
ID: "Mun. Primary Inf., PIN 12894"

Formaldehyde by HPLC 230 ug/L

Sample No.:941291-03 Type:solid Rec'd: 5/09/94
Sampled: 5/09/94 By:G.T. of KWRP
ID: "Belt Press Cake, BPC 12994"

Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

Sample No.:941291-04 Type:aqueous Rec'd: 5/09/94
Sampled: 5/09/94 By:G.T. of KWRP
ID: "Municipal Primary Inf., PIN 12994"

Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941291
Report Date: 5/23/94

Project Desc.: Analysis of eight samples.

Sample No.:941291-05 Type:aqueous Rec'd: 5/09/94
Sampled: 5/09/94 By:G.T. of KWRP
ID: "Tertiary Eff., TE 12994"

Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/L

Sample No.:941291-06 Type:aqueous Rec'd: 5/09/94
Sampled: 5/09/94 By:G.T. of KWRP
ID: "Industrial Inf., II 12994"

Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/L

Sample No.:941291-07 Type:solid Rec'd: 5/09/94
Sampled: 5/09/94 By:G.T. of KWRP
ID: "DSE Press Cake, DSE 12994"

Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941291
Report Date: 5/23/94

Project Desc.: Analysis of eight samples.

Sample No.:941291-08 Type:solid Rec'd: 5/09/94
Sampled: 5/09/94 By:G.T. of KWRP
ID: "Incinerator Ash, INA 12994"

Mercury, total	<0.5 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 941345
Client No.: 1046
Date Activated: 5/12/94
Date Promised: 5/26/94
Date Reported: 5/26/94
PO#:

Project Desc.: Analysis of ten samples.

Dear Client:

Attached you will find test results for Project No. 941345. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.


Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941345
Report Date: 5/26/94

Project Desc.: Analysis of ten samples.

Sample No.:941345-01 Type:aqueous Rec'd: 5/12/94
Sampled: 5/09/94 10:30am By:SMR of KWRP
ID: "ACE Hardware Cork Street, ACH 12994"

PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/L

Sample No.:941345-02 Type:aqueous Rec'd: 5/12/94
Sampled: 5/09/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 12994"

Formaldehyde by HPLC 480 ug/L

Sample No.:941345-03 Type:aqueous Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 13094"

Formaldehyde by HPLC 250 ug/L

Sample No.:941345-04 Type:aqueous Rec'd: 5/12/94
Sampled: 5/11/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 13194"

Formaldehyde by HPLC 740 ug/L

Sample No.:941345-05 Type:aqueous Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 13094"

Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941345
Report Date: 5/26/94

Project Desc.: Analysis of ten samples.

PCB Aroclors, total NA ug/L

Sample No.:941345-06 Type:aqueous Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "Tertiary Eff., TE 13094"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/LSample No.:941345-07 Type:aqueous Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "Industrial Inf., II 13094"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/LSample No.:941345-08 Type:solid Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "Belt Press Cake, BPC 13094"Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941345
Report Date: 5/26/94

Project Desc.: Analysis of ten samples.

Sample No.:941345-09 Type:solid Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "DSE Press Cake, DSE 13094"

Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

Sample No.:941345-10 Type:solid Rec'd: 5/12/94
Sampled: 5/10/94 By:GT of KWRP
ID: "Incinerator Ash, INA 13094"

Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 941668
Client No.: 1046
Date Activated: 6/09/94
Date Promised: 6/23/94
Date Reported: 6/23/94
PO#: 071565

Project Desc.: Analysis of nine samples.

Dear Client:

Attached you will find test results for Project No. 941668. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.

Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941668
Report Date: 6/23/94

Project Desc.: Analysis of nine samples.

Sample No.:941668-01 Type:aqueous Rec'd: 6/09/94
Sampled: 6/09/94 7am By:GT of KWRP
ID: "Mun. Primary Inf., PIN 16094"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	0.1 ug/L
PCB Aroclors, total	0.1 ug/L

Sample No.:941668-02 Type:aqueous Rec'd: 6/09/94
Sampled: 6/09/94 7am By:GT of KWRP
ID: "Tertiary Eff., TE 16094"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

Sample No.:941668-03 Type:aqueous Rec'd: 6/09/94
Sampled: 6/09/94 7am By:GT of KWRP
ID: "Industiral Inf., II 16094"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941668
Report Date: 6/23/94

Project Desc.: Analysis of nine samples.

Sample No.: 941668-04 Type:solid Rec'd: 6/09/94
Sampled: 6/08/94 7am By:GT of KWRP
ID: "DSE Press Cake, DSE 15994"

Mercury, total	0.7 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

Sample No.: 941668-05 Type:solid Rec'd: 6/09/94
Sampled: 6/08/94 7am By:GT of KWRP
ID: "Belt Press Cake, BPC 15994"

Mercury, total	<0.5 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

Sample No.: 941668-06 Type:solid Rec'd: 6/09/94
Sampled: 6/08/94 7am By:GT of KWRP
ID: "Incinerator Ash, INA 15994"

Mercury, total	<0.5 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941668
Report Date: 6/23/94

Project Desc.: Analysis of nine samples.

Sample No.:941668-07 Type:aqueous Rec'd: 6/09/94
Sampled: 6/06/94 7am By:GT of KWRP
ID: "Mun. Primary Inf., PIN 15794"

Formaldehyde by HPLC 670 ug/L

Sample No.:941668-08 Type:aqueous Rec'd: 6/09/94
Sampled: 6/07/94 7am By:GT of KWRP
ID: "Mun. Primary Inf., PIN 15894"

Formaldehyde by HPLC 720 ug/L

Sample No.:941668-09 Type:aqueous Rec'd: 6/09/94
Sampled: 6/08/94 7am By:GT of KWRP
ID: "Mun. Primary Inf., PIN 15994"

Formaldehyde by HPLC 950 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 941712
Client No.: 1046
Date Activated: 6/13/94
Date Promised: 6/27/94
Date Reported: 6/27/94
PO#: 071565

Project Desc.: Analysis of eight samples.

Dear Client:

Attached you will find test results for Project No. 941712. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.


Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941712
Report Date: 6/27/94

Project Desc.: Analysis of eight samples.

Sample No.:941712-01 Type:aqueous Rec'd: 6/13/94
Sampled: 6/10/94 7:00am By:GT of KWRP
ID: "Mun. Primary Influent, PIN 16194"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

Sample No.:941712-02 Type:aqueous Rec'd: 6/13/94
Sampled: 6/10/94 7:00am By:GT of KWRP
ID: "Tertiary Effluent, TE 16194"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

Sample No.:941712-03 Type:aqueous Rec'd: 6/13/94
Sampled: 6/10/94 7:00am By:GT of KWRP
ID: "Industrial Influent, II 16194"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941712
Report Date: 6/27/94

Project Desc.: Analysis of eight samples.

Sample No.:941712-04 Type:solid Rec'd: 6/13/94
Sampled: 6/09/94 7:00am By:GT of KWRP
ID: "Belt Press Cake, BPC 16094"

Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

Sample No.:941712-05 Type:solid Rec'd: 6/13/94
Sampled: 6/09/94 7:00am By:GT of KWRP
ID: "Incinerator Ash, INA 16094"

Mercury, total <0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

Sample No.:941712-06 Type:solid Rec'd: 6/13/94
Sampled: 6/09/94 7:00am By:GT of KWRP
ID: "DSE Cake, DSE 16094"

Mercury, total 0.5 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 941712
Report Date: 6/27/94

Project Desc.: Analysis of eight samples.

Sample No.:941712-07 Type:aqueous Rec'd: 6/13/94
Sampled: 6/09/94 7:00am By:GT of KWRP
ID: "Mun. Primary Influent, PIN 16094"

Formaldehyde by HPLC 380 ug/L

Sample No.:941712-08 Type:aqueous Rec'd: 6/13/94
Sampled: 6/12/94 7:00am By:GT of KWRP
ID: "Mun. Primary Influent, PIN 16394"

Formaldehyde by HPLC 360 ug/L

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 942096
Client No.: 1046
Date Activated: 7/14/94
Date Promised: 7/28/94
Date Reported: 7/28/94
PO#: 071565

Project Desc.: Analysis of 15 samples (KWRP C-of-C's #1455, 1456, 2205, 2206, 2207).

Dear Client:

Attached you will find test results for Project No. 942096. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.

Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942096
Report Date: 7/28/94

Project Desc.: Analysis of 15 samples (KWRP C-of-C's #1455, 1456, 2205, 2206, 2207).

Sample No.:942096-01 Type:aqueous Rec'd: 7/14/94
Sampled: 7/11/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 19294"

Formaldehyde by HPLC 810 ug/L

Sample No.:942096-02 Type:aqueous Rec'd: 7/14/94
Sampled: 7/12/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 19394"

Formaldehyde by HPLC 380 ug/L

Sample No.:942096-03 Type:aqueous Rec'd: 7/14/94
Sampled: 7/13/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 19494"

Formaldehyde by HPLC 160 ug/L

Sample No.:942096-04 Type:aqueous Rec'd: 7/14/94
Sampled: 7/11/94 By:GT of KWRP
ID: "Tertiary Eff., TE 19294"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/LSample No.:942096-05 Type:aqueous Rec'd: 7/14/94
Sampled: 7/11/94 By:GT of KWRP
ID: "Industrial Inf., II 19294"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942096
Report Date: 7/28/94

Project Desc.: Analysis of 15 samples (KWRP C-of-C's #1455, 1456, 2205, 2206, 2207).

PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/L

Sample No.:942096-06 Type:aqueous Rec'd: 7/14/94

Sampled: 7/11/94 By:GT of KWRP

ID: "Mun. Primary Inf., PIN 19294"

Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/L

Sample No.:942096-07 Type:solid Rec'd: 7/14/94

Sampled: 7/11/94 By:GT of KWRP

ID: "DSE Press Cake, DSE 19294"

Mercury, total, low level 0.39 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

Sample No.:942096-08 Type:solid Rec'd: 7/14/94

Sampled: 7/11/94 By:GT of KWRP

ID: "Belt Press Cake, BPC 19294"

Mercury, total, low level 0.25 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942096
Report Date: 7/28/94

Project Desc.: Analysis of 15 samples (KWRP C-of-C's #1455, 1456, 2205, 2206, 2207).

Sample No.:942096-09 Type:solid Rec'd: 7/14/94
Sampled: 7/11/94 By:GT of KWRP
ID: "Incinerator Ash, INA 19294"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

Sample No.:942096-10 Type:aqueous Rec'd: 7/14/94
Sampled: 7/13/94 By:GT of KWRP
ID: "Tertiary Eff., TE 19494"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

Sample No.:942096-11 Type:aqueous Rec'd: 7/14/94
Sampled: 7/13/94 By:GT of KWRP
ID: "Mun. Primary Inf, PIN 19494"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942096
Report Date: 7/28/94

Project Desc.: Analysis of 15 samples (KWRP C-of-C's #1455, 1456, 2205, 2206, 2207).

Sample No.: 942096-12 Type: aqueous Rec'd: 7/14/94
Sampled: 7/13/94 By: GT of KWRP
ID: "Industrial Inf, II 19494"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/LSample No.: 942096-13 Type: solid Rec'd: 7/14/94
Sampled: 7/13/94 By: GT of KWRP
ID: "Belt Press Cake, BPC 19494"Mercury, total, low level 0.20 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kgSample No.: 942096-14 Type: solid Rec'd: 7/14/94
Sampled: 7/13/94 By: GT of KWRP
ID: "DSE Press Cake, DSE 19494"Mercury, total, low level 0.30 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942096
Report Date: 7/28/94

Project Desc.: Analysis of 15 samples (KWRP C-of-C's #1455, 1456, 2205, 2206, 2207).

Sample No.: 942096-15 Type:solid Rec'd: 7/14/94
Sampled: 7/13/94 By: GT of KWRP
ID: "Incinerator Ash, INA 19494"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 942326
Client No.: 1046
Date Activated: 8/04/94
Date Promised: 8/18/94
Date Reported: 8/18/94
PO#: 071565

Project Desc.: Analysis of nine samples (KWRP C-of-C # 1469, 1470, 1471).

Dear Client:

Attached you will find test results for Project No. 942326. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.

Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942326
Report Date: 8/18/94

Project Desc.: Analysis of nine samples (KWRP C-of-C # 1469, 1470, 1471).

Sample No.:942326-01 Type:aqueous Rec'd: 8/04/94
Sampled: 8/01/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 21394"

Formaldehyde by HPLC 1230 ug/L

Sample No.:942326-02 Type:aqueous Rec'd: 8/04/94
Sampled: 8/02/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 21494"

Formaldehyde by HPLC 1160 ug/L

Sample No.:942326-03 Type:aqueous Rec'd: 8/04/94
Sampled: 8/03/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 21594"

Formaldehyde by HPLC 790 ug/L

Sample No.:942326-04 Type:aqueous Rec'd: 8/04/94
Sampled: By:GT of KWRP
ID: "Tertiary Eff., TE 21694"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:942326-05 Type:aqueous Rec'd: 8/04/94
Sampled: By:GT of KWRP
ID: "Industrial Inf., II 21694"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942326
Report Date: 8/18/94

Project Desc.: Analysis of nine samples (KWRP C-of-C # 1469, 1470, 1471).

PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NASample No.:942326-06 Type:aqueous Rec'd: 8/04/94
Sampled: By:GT of KWRP
ID: "Mun. Primary Inf., PIN 21694"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NASample No.:942326-07 Type:solid Rec'd: 8/04/94
Sampled: By:GT of KWRP
ID: "Incinerator Ash, INA 21594"Mercury, total, low level <0.05 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kgSample No.:942326-08 Type:solid Rec'd: 8/04/94
Sampled: By:GT of KWRP
ID: "Belt Press Cake, BPC 21594"Mercury, total, low level 0.13 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942326

Report Date: 8/18/94

Project Desc.: Analysis of nine samples (KWRP C-of-C # 1469, 1470, 1471).

Sample No.: 942326-09 Type:solid Rec'd: 8/04/94
Sampled: By: GT of KWRP
ID: "DSE Press Cake, DSE 21594"

Mercury, total, low level	0.23 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 942338
Client No.: 1046
Date Activated: 8/05/94
Date Promised: 8/19/94
Date Reported: 8/19/94
PO#: 071565

Project Desc.: Analysis of two aqueous samples from Upjohn (C-of-C #12803 & 12804).

Dear Client:

Attached you will find test results for Project No. 942338. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.


Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942338
Report Date: 8/19/94

Project Desc.: Analysis of two aqueous samples from Upjohn (C-of-C #12803 & 12804).

Sample No.:942338-01 Type:aqueous Rec'd: 8/05/94
Sampled: 7/29/94 1:00pm By:DSH of KWRP
ID: "UK1 21094"

PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:942338-02 Type:aqueous Rec'd: 8/05/94
Sampled: 7/29/94 1:10pm By:DSH of KWRP
ID: "UJK 21094"

PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Unless otherwise noted, test results represent the sample(s) as they were received.

• KAR Laboratories, Inc.
• 4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 942402
Client No.: 1046
Date Activated: 8/11/94
Date Promised: 8/25/94
Date Reported: 8/25/94
PO#: 071565

Project Desc.: Analysis of nine samples (KWRP C-of-C #1476, 1479, 1480).

Dear Client:

Attached you will find test results for Project No. 942402. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.


Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942402
Report Date: 8/25/94

Project Desc.: Analysis of nine samples (KWRP C-of-C #1476, 1479, 1480).

Sample No.:942402-01 Type:aqueous Rec'd: 8/11/94
Sampled: 8/08/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 22094"

Formaldehyde by HPLC 1070 ug/L

Sample No.:942402-02 Type:aqueous Rec'd: 8/11/94
Sampled: 8/09/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 22194"

Formaldehyde by HPLC 540 ug/L

Sample No.:942402-03 Type:aqueous Rec'd: 8/11/94
Sampled: 8/10/94 By:GT of KWRP
ID: "Mun. Primary Inf., PIN 22294"

Formaldehyde by HPLC 1690 ug/L

Sample No.:942402-04 Type:aqueous Rec'd: 8/11/94
Sampled: By:GT of KWRP
ID: "Mun. Primary Inf., PIN"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA ug/L

Sample No.:942402-05 Type:aqueous Rec'd: 8/11/94
Sampled: By:GT of KWRP
ID: "Industrial Inf., II"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942402
Report Date: 8/25/94

Project Desc.: Analysis of nine samples (KWRP C-of-C #1476, 1479, 1480).

PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/LSample No.: 942402-06 Type: aqueous Rec'd: 8/11/94
Sampled: By: GT of KWRP
ID: "Tertiary Eff., TE 2"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NA ug/LSample No.: 942402-07 Type: solid Rec'd: 8/11/94
Sampled: 8/09/94 By: GT of KWRP
ID: "DSE Press Cake, DSE 22194"Mercury, total, low level 0.47 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kgSample No.: 942402-08 Type: solid Rec'd: 8/11/94
Sampled: 8/09/94 By: GT of KWRP
ID: "Belt Press Cake, BPC 22194"Mercury, total, low level 0.31 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA ug/kg

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942402

Report Date: 8/25/94

Project Desc.: Analysis of nine samples (KWRP C-of-C #1476, 1479, 1480).

Sample No.: 942402-09 Type:solid Rec'd: 8/11/94
Sampled: 8/09/94 By: GT of KWRP
ID: "Incinerator Ash, INA 22194"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA ug/kg

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 942658
Client No.: 1046
Date Activated: 9/06/94
Date Promised: 9/20/94
Date Reported: 9/20/94
PO#: 071565

Project Desc.: Analysis of nine samples (KWRP C-of-C #1502, 1505, 1506).

Dear Client:

Attached you will find test results for Project No. 942658. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.


Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942658
Report Date: 9/20/94

Project Desc.: Analysis of nine samples (KWRP C-of-C #1502, 1505, 1506).

Sample No.:942658-01 Type:aqueous Rec'd: 9/06/94
Sampled: 9/01/94 7:00am By:KWRP
ID: "Mun. Primary Influent, PIN 24494"

Formaldehyde by HPLC 420 ug/L

Sample No.:942658-02 Type:aqueous Rec'd: 9/06/94
Sampled: 9/04/94 7:00am By:KWRP
ID: "Mun. Primary Influent, PIN 24794"

Formaldehyde by HPLC 220 ug/L

Sample No.:942658-03 Type:aqueous Rec'd: 9/06/94
Sampled: 9/05/94 7:00am By:KWRP
ID: "Mun. Primary Influent, PIN 24894"

Formaldehyde by HPLC 390 ug/L

Sample No.:942658-04 Type:aqueous Rec'd: 9/06/94
Sampled: 9/06/94 7:00am By:P.Manderfield of KWRP
ID: "Pri. Inf., PIN 24994"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:942658-05 Type:aqueous Rec'd: 9/06/94
Sampled: 9/06/94 7:00am By:P.Manderfield of KWRP
ID: "Ind. Inf., II 24994"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942658
Report Date: 9/20/94

Project Desc.: Analysis of nine samples (KWRP C-of-C #1502, 1505, 1506).

PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NASample No.: 942658-06 Type: aqueous Rec'd: 9/06/94
Sampled: 9/06/94 7:00am By:P.Manderfield of KWRP
ID: "Tert. Eff., TE 24994"Mercury, total <0.0005 mg/L
PCB Aroclor 1016 <0.1 ug/L
PCB Aroclor 1221 <0.1 ug/L
PCB Aroclor 1232 <0.1 ug/L
PCB Aroclor 1242 <0.1 ug/L
PCB Aroclor 1248 <0.1 ug/L
PCB Aroclor 1254 <0.1 ug/L
PCB Aroclor 1260 <0.1 ug/L
PCB Aroclors, total NASample No.: 942658-07 Type: solid Rec'd: 9/06/94
Sampled: 9/05/94 7:00am By:P.Manderfield of KWRP
ID: "Incinerator Ash, IA 24894"Mercury, total, low level <0.05 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NASample No.: 942658-08 Type: solid Rec'd: 9/06/94
Sampled: 9/05/94 7:00am By:P.Manderfield of KWRP
ID: "Belt Press Cake, BPC 24894"Mercury, total, low level <0.05 mg/kg
PCB Aroclor 1016 <330 ug/kg
PCB Aroclor 1221 <330 ug/kg
PCB Aroclor 1232 <330 ug/kg
PCB Aroclor 1242 <330 ug/kg
PCB Aroclor 1248 <330 ug/kg
PCB Aroclor 1254 <330 ug/kg
PCB Aroclor 1260 <330 ug/kg
PCB Aroclors, total NA

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942658
Report Date: 9/20/94

Project Desc.: Analysis of nine samples (KWRP C-of-C #1502, 1505, 1506).

Sample No.:942658-09 Type:solid Rec'd: 9/06/94
Sampled: 9/05/94 7:00am By:P.Manderfield of KWRP
ID: "DSE Press Cake, DSE 24894"

Mercury, total, low level	0.17 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 942708
Client No.: 1046
Date Activated: 9/08/94
Date Promised: 9/22/94
Date Reported: 9/22/94
PO#:

Project Desc.: Analysis of six samples (KWRP C-of-C #1508 & 1509).

Dear Client:

Attached you will find test results for Project No. 942708. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.


Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942708
Report Date: 9/22/94

Project Desc.: Analysis of six samples (KWRP C-of-C #1508 & 1509).

Sample No.:942708-01 Type:aqueous Rec'd: 9/08/94
Sampled: 9/08/94 7:00am By:Client
ID: "Tertiary Effluent, TE 25194"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:942708-02 Type:aqueous Rec'd: 9/08/94
Sampled: 9/08/94 7:00am By:Client
ID: "Primary Influent, PIN 25194"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:942708-03 Type:aqueous Rec'd: 9/08/94
Sampled: 9/08/94 7:00am By:Client
ID: "Industrial Influent, II 25194"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 942708
Report Date: 9/22/94

Project Desc.: Analysis of six samples (KWRP C-of-C #1508 & 1509).

Sample No.:942708-04 Type:solid Rec'd: 9/08/94
Sampled: 9/07/94 7:00am By:Client
ID: "Belt Press Cake, BPC 25094"

Mercury, total, low level	0.07 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Sample No.:942708-05 Type:solid Rec'd: 9/08/94
Sampled: 9/07/94 7:00am By:Client
ID: "Incinerator Ash, IA 25094"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Sample No.:942708-06 Type:solid Rec'd: 9/08/94
Sampled: 9/07/94 7:00am By:Client
ID: "DSE Press Cake, DSE 25094"

Mercury, total, low level	0.24 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 943045
Client No.: 1046
Date Activated: 10/06/94
Date Promised: 10/20/94
Date Reported: 10/19/94
PO#: 71565

Project Desc.: Analysis of 12 samples. (KWRP C-of-C #001533, 001534, 001536, 001537).

Dear Client:

Attached you will find test results for Project No. 943045. Please refer to this Project No. if you have any questions regarding this work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.

William H. Bouma Jr.
Michael J. Jaeger
Director of Laboratories

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 943045
Report Date: 10/19/94

Project Desc.: Analysis of 12 samples. (KWRP C-of-C #001533, 001534,
001536, 001537).

Unless otherwise noted, test results represent the sample(s) as they
were received.

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 9430
Report Date: 10/19/

Project Desc.: Analysis of 12 samples. (KWRP C-of-C #001533, 001534, 001536, 001537).

Sample No.: 943045-01 Type: aqueous Rec'd: 10/06/94
Sampled: 10/04/94 12:30pm By: Client
ID: "Mun. Primary Influent, PIN 27794"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.: 943045-02 Type: aqueous Rec'd: 10/06/94
Sampled: 10/04/94 12:30pm By: Client
ID: "Industrial Influent, II 27794"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.: 943045-03 Type: aqueous Rec'd: 10/06/94
Sampled: 10/04/94 12:30pm By: Client
ID: "Tertiary Effluent, TE 27794"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 943045
Report Date: 10/19/94

Project Desc.: Analysis of 12 samples. (KWRP C-of-C #001533, 001534, 001536, 001537).

Sample No.:943045-04 Type:solid Rec'd:10/06/94
Sampled:10/03/94 7:00am By:Client
ID: "DSE Press Cake, DSE 27694"

Mercury, total, low level	0.36 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Sample No.:943045-05 Type:solid Rec'd:10/06/94
Sampled:10/03/94 7:00am By:Client
ID: "Belt Press Cake, BPC 27694"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Sample No.:943045-06 Type:solid Rec'd:10/06/94
Sampled:10/03/94 7:00am By:Client
ID: "Incinerator Ash, IA 27694"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 943045
Report Date: 10/19/94

Project Desc.: Analysis of 12 samples. (KWRP C-of-C #001533, 001534, 001536, 001537).

Sample No.:943045-07 Type:aqueous Rec'd:10/06/94
Sampled:10/06/94 7:00am By:Client
ID: "Mun. Primary Influent, PIN 27994"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:943045-08 Type:aqueous Rec'd:10/06/94
Sampled:10/06/94 7:00am By:Client
ID: "Industrial Influent, II 27994"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.:943045-09 Type:aqueous Rec'd:10/06/94
Sampled:10/06/94 7:00am By:Client
ID: "Tertiary Effluent, TE 27994"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

ANALYTICAL RESULTS

To: Kalamazoo Water Reclamation Plant

Project No: 943045
Report Date: 10/19/94

Project Desc.: Analysis of 12 samples. (KWRP C-of-C #001533, 001534, 001536, 001537).

Sample No.:943045-10 Type:solid Rec'd:10/06/94
Sampled:10/05/94 7:00am By:Client
ID: "DSE Press Cake, DSE 27894"

Mercury, total, low level	0.36 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Sample No.:943045-11 Type:solid Rec'd:10/06/94
Sampled:10/05/94 7:00am By:Client
ID: "Belt Press Cake, BPC 27894"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

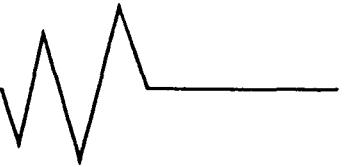
Sample No.:943045-12 Type:solid Rec'd:10/06/94
Sampled:10/05/94 7:00am By:Client
ID: "Incinerator Ash, IA 27894"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 943340
Client No.: 1046
Date Activated: 11/03/94
Date Promised: 11/17/94
Date Reported: 11/17/94
PO#: 071565

Project Desc.: Analysis of six samples (KWRP C-of-C #1554 & 1557).

Dear Client:

Attached you will find test results for Project No. 943340. Please refer to this Project No. if you have any questions regarding our work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.

Michael J. Jaeger
Director of Laboratories

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Project No.: 943340
Client No.: 1046
Project Date: 11/03/94
Date Promised: 11/17/94
Date Reported: 11/17/94
PO#: 071565

Attn: Mr. Ken Leanin

Project Desc.: Analysis of six samples (KWRP C-of-C #1554 & 1557).

Sample No.: 943340-01 Type: aqueous Rec'd: 11/03/94
Sampled: 11/03/94 By: GT of KWRP
ID: "Mun. Primary Inf., PIN 30794"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	0.2 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	0.2 ug/L

Sample No.: 943340-02 Type: aqueous Rec'd: 11/03/94
Sampled: 11/03/94 By: GT of KWRP
ID: "Industrial Inf., II 30794"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Project No.: 943340
Client No.: 1046
Project Date: 11/03/94
Date Promised: 11/17/94
Date Reported: 11/17/94
PO#: 071565

Attn: Mr. Ken Leanin

Project Desc.: Analysis of six samples (KWRP C-of-C #1554 & 1557).

Sample No.: 943340-03 Type: aqueous Rec'd: 11/03/94
Sampled: 11/03/94 By: GT of KWRP
ID: "Tertiary Eff., TE 30794"

Mercury, total	<0.0005 mg/L
PCB Aroclor 1016	<0.1 ug/L
PCB Aroclor 1221	<0.1 ug/L
PCB Aroclor 1232	<0.1 ug/L
PCB Aroclor 1242	<0.1 ug/L
PCB Aroclor 1248	<0.1 ug/L
PCB Aroclor 1254	<0.1 ug/L
PCB Aroclor 1260	<0.1 ug/L
PCB Aroclors, total	NA

Sample No.: 943340-04 Type: solid Rec'd: 11/03/94
Sampled: 11/02/94 By: GT of KWRP
ID: "DSE Press Cake, DSE 30694"

Mercury, total, low level	0.28 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Project No.: 943340
Client No.: 1046
Project Date: 11/03/94
Date Promised: 11/17/94
Date Reported: 11/17/94
PO#: 071565

Attn: Mr. Ken Leanin

Project Desc.: Analysis of six samples (KWRP C-of-C #1554 & 1557).

Sample No.:943340-05 Type:solid Rec'd:11/03/94
Sampled:11/02/94 By:GT of KWRP
ID: "Belt Press Cake, BPC 30694"

Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Sample No.:943340-06 Type:solid Rec'd:11/03/94
Sampled:11/02/94 By:GT of KWRP
ID: "Incinerator Ash, INA 30694"

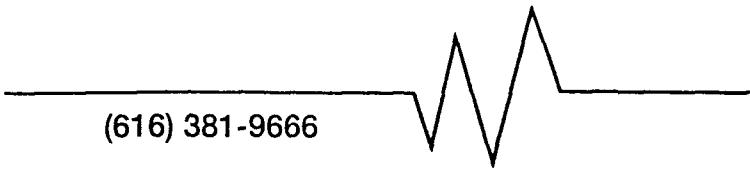
Mercury, total, low level	<0.05 mg/kg
PCB Aroclor 1016	<330 ug/kg
PCB Aroclor 1221	<330 ug/kg
PCB Aroclor 1232	<330 ug/kg
PCB Aroclor 1242	<330 ug/kg
PCB Aroclor 1248	<330 ug/kg
PCB Aroclor 1254	<330 ug/kg
PCB Aroclor 1260	<330 ug/kg
PCB Aroclors, total	NA

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666



ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.:	943370
Client No.:	1046
Date Activated:	11/07/94
Date Promised:	11/21/94
Date Reported:	11/18/94
PO#:	071565

Project Desc.: Analysis of six samples (KWRP C-of-C #1559 & 1560).

Dear Client:

Attached you will find test results for Project No. 943370. Please refer to this Project No. if you have any questions regarding our work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.



Michael J. Jaeger
Director of Laboratories

11/18/94

ANALYTICAL RESULTS

Page 1

To: Kalamazoo Water Reclamation Plant
 Re: Analysis of six samples (KWRP C-of-C #1559 & 1560).

Project No: 943370

Sample ID: "Mun. Primary Inf., PIN 31194"
Sample Type: aqueous
Date/Time Sampled: 11/07/94
Sampled By: GT of KWRP
Date Received: 11/07/94
Lab Sample No.: 943370-01

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	0.3	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	0.3	ug/L	

Sample ID: "Industrial Inf., II 31194"
Sample Type: aqueous
Date/Time Sampled: 11/07/94
Sampled By: GT of KWRP
Date Received: 11/07/94
Lab Sample No.: 943370-02

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	<0.1	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	NA		

Sample ID: "Tertiary Eff., TE 31194"
Sample Type: aqueous
Date/Time Sampled: 11/07/94
Sampled By: GT of KWRP
Date Received: 11/07/94
Lab Sample No.: 943370-03

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	

11/18/94

ANALYTICAL RESULTS

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To: Kalamazoo Water Reclamation Plant
 Re: Analysis of six samples (KWRP C-of-C #1559 & 1560).

Project No: 943370

PCB Aroclor 1221	<0.1	ug/L
PCB Aroclor 1232	<0.1	ug/L
PCB Aroclor 1242	<0.1	ug/L
PCB Aroclor 1248	<0.1	ug/L
PCB Aroclor 1254	<0.1	ug/L
PCB Aroclor 1260	<0.1	ug/L
PCB Aroclors, total	NA	

Sample ID: "DSE Press Cake, DSE 30894"

Sample Type: solid
Date/Time Sampled: 11/04/94
Sampled By: GT of KWRP
Date Received: 11/07/94
Lab Sample No.: 943370-04

Parameter	Results	Units	Comments
Mercury, total, low level	0.29	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

Sample ID: "Belt Press Cake, BPC 30894"

Sample Type: solid
Date/Time Sampled: 11/04/94
Sampled By: GT of KWRP
Date Received: 11/07/94
Lab Sample No.: 943370-05

Parameter	Results	Units	Comments
Mercury, total, low level	<0.05	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	570	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	570	ug/kg	

To: Kalamazoo Water Reclamation Plant
Re: Analysis of six samples (KWRP C-of-C #1559 & 1560).

Project No: 943370

Sample ID: "Incinerator Ash, INA 30894"
Sample Type: solid
Date/Time Sampled: 11/04/94
Sampled By: GT of KWRP
Date Received: 11/07/94
Lab Sample No.: 943370-06

Parameter	Results	Units	Comments
Mercury, total, low level	<0.05	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

Unless otherwise noted, test results represent the sample(s) as they were received.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

ANALYTICAL REPORT

To: Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Mr. Ken Leanin

Proj. No.: 943691
Client No.: 1046
Date Activated: 12/05/94
Date Promised: 12/19/94
Date Reported: 12/19/94
PO#: 071565

Project Desc.: Analysis of eight samples. (KWRP C-ofC #001590,1,2).

Dear Client:

Attached you will find test results for Project No. 943691. Please refer to this Project No. if you have any questions regarding our work. Unless noted otherwise all tests were performed within the maximum U.S. EPA allowable holding times.

Respectfully submitted,
KAR Laboratories, Inc.



Michael J. Jaeger
Director of Laboratories

12/19/94

ANALYTICAL RESULTS

Page 1

To: Kalamazoo Water Reclamation Plant
 Re: Analysis of eight samples. (KWRP C-ofC #001590,1,2).

Project No: 943691

Sample ID: "Mun. Primary Inf., PIN 33994"
Sample Type: aqueous
Date/Time Sampled: 12/05/94
Sampled By: Client
Date Received: 12/05/94
Lab Sample No.: 943691-01

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	<0.1	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	NA		

Sample ID: "Tertiary Eff., TE 33994"
Sample Type: aqueous
Date/Time Sampled: 12/05/94
Sampled By: Client
Date Received: 12/05/94
Lab Sample No.: 943691-02

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	<0.1	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	NA		

Sample ID: "Industrial Inf., II 33994"
Sample Type: aqueous
Date/Time Sampled: 12/05/94
Sampled By: Client
Date Received: 12/05/94
Lab Sample No.: 943691-03

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	

To: Kalamazoo Water Reclamation Plant
 Re: Analysis of eight samples. (KWRP C-ofC #001590,1,2).

Project No: 943691

PCB Aroclor 1221	<0.1	ug/L
PCB Aroclor 1232	<0.1	ug/L
PCB Aroclor 1242	<0.1	ug/L
PCB Aroclor 1248	<0.1	ug/L
PCB Aroclor 1254	<0.1	ug/L
PCB Aroclor 1260	<0.1	ug/L
PCB Aroclors, total	NA	

Sample ID: "DSE Press Cake, DSE 33994"

Sample Type: solid

Date/Time Sampled: 12/05/94

Sampled By: Client

Date Received: 12/05/94

Lab Sample No.: 943691-04

Parameter	Results	Units	Comments
Mercury, total, low level	0.47	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

Sample ID: "Belt Press Cake, BPC 33994"

Sample Type: solid

Date/Time Sampled: 12/05/94

Sampled By: Client

Date Received: 12/05/94

Lab Sample No.: 943691-05

Parameter	Results	Units	Comments
Mercury, total, low level	<0.05	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

12/19/94

ANALYTICAL RESULTS

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To: Kalamazoo Water Reclamation Plant
 Re: Analysis of eight samples. (KWRP C-ofC #001590,1,2).

Project No: 943691

Sample ID: "Incinerator Ash, IA 33994"
Sample Type: solid
Date/Time Sampled: 12/05/94
Sampled By: Client
Date Received: 12/05/94
Lab Sample No.: 943691-06

Parameter	Results	Units	Comments
Mercury, total, low level	<0.05	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

Sample ID: "Mun. Primary Inf., PIN 33594"
Sample Type: aqueous
Date/Time Sampled: 12/01/94
Sampled By: Client
Date Received: 12/05/94
Lab Sample No.: 943691-07

Parameter	Results	Units	Comments
Formaldehyde by HPLC	1770	ug/L	

Sample ID: "Mun. Primary Inf., PIN 33894"
Sample Type: aqueous
Date/Time Sampled: 12/04/94
Sampled By: Client
Date Received: 12/05/94
Lab Sample No.: 943691-08

Parameter	Results	Units	Comments
Formaldehyde by HPLC	930	ug/L	

Unless otherwise noted, test results represent the sample(s) as they were received.

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "MUN. Primary Inf. PIN34994"
Sample Type: aqueous
Date/Time Sampled: 12/15/94
Sampled By: GT of KWRP
Date Received: 12/15/94
Lab Sample No.: 943839-01

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	<0.1	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	NA		

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "Industrial Inf. PIN34994"
Sample Type: aqueous
Date/Time Sampled: 12/15/94
Sampled By: GT of KWRP
Date Received: 12/15/94
Lab Sample No.: 943839-02

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	<0.1	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	NA		

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "Tertiary Eff. TE34994"
Sample Type: aqueous
Date/Time Sampled: 12/15/94
Sampled By: GT of KWRP
Date Received: 12/15/94
Lab Sample No.: 943839-03

Parameter	Results	Units	Comments
Mercury, total	<0.0005	mg/L	
PCB Aroclor 1016	<0.1	ug/L	
PCB Aroclor 1221	<0.1	ug/L	
PCB Aroclor 1232	<0.1	ug/L	
PCB Aroclor 1242	<0.1	ug/L	
PCB Aroclor 1248	<0.1	ug/L	
PCB Aroclor 1254	<0.1	ug/L	
PCB Aroclor 1260	<0.1	ug/L	
PCB Aroclors, total	NA		

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "Incinerator Ash IA34894"
Sample Type: solid
Date/Time Sampled: 12/14/94
Sampled By: GT of KWRP
Date Received: 12/16/94
Lab Sample No.: 943839-04

Parameter	Results	Units	Comments
Mercury, total, low level	<0.05	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "Belt Press Cake BPC34894"
Sample Type: solid
Date/Time Sampled: 12/14/94
Sampled By: GT of KWRP
Date Received: 12/16/94
Lab Sample No.: 943839-05

Parameter	Results	Units	Comments
Mercury, total, low level	<0.05	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "DSE Press Cake DSE34894"
Sample Type: solid
Date/Time Sampled: 12/14/94
Sampled By: GT of KWRP
Date Received: 12/16/94
Lab Sample No.: 943839-06

Parameter	Results	Units	Comments
Mercury, total, low level	0.10	mg/kg	
PCB Aroclor 1016	<330	ug/kg	
PCB Aroclor 1221	<330	ug/kg	
PCB Aroclor 1232	<330	ug/kg	
PCB Aroclor 1242	<330	ug/kg	
PCB Aroclor 1248	<330	ug/kg	
PCB Aroclor 1254	<330	ug/kg	
PCB Aroclor 1260	<330	ug/kg	
PCB Aroclors, total	NA		

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "MUN. Primary Inf. PIN34694"
Sample Type: aqueous
Date/Time Sampled: 12/12/94
Sampled By: GT of KWRP
Date Received: 12/16/94
Lab Sample No.: 943839-07

<i>Parameter</i>	<i>Results</i>	<i>Units</i>	<i>Comments</i>
Formaldehyde by HPLC	2060	ug/L	

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "MUN. Primary Inf. PIN34794"
Sample Type: aqueous
Date/Time Sampled: 12/12/94
Sampled By: GT of KWRP
Date Received: 12/16/94
Lab Sample No.: 943839-08

Parameter	Results	Units	Comments
Formaldehyde by HPLC	1440	ug/L	

To: Kalamazoo Water Reclamation Plant
Re: Analysis of nine samples (KWRP #1599, 1600, 2301).

Project No: 943839

Sample ID: "MUN. Primary Inf. PIN34894"
Sample Type: aqueous
Date/Time Sampled: 12/12/94
Sampled By: GT of KWRP
Date Received: 12/16/94
Lab Sample No.: 943839-09

Parameter	Results	Units	Comments
Formaldehyde by HPLC	2290	ug/L	

Unless otherwise noted, test results represent the sample(s) as they were received.

ANALYTICAL REPORT

KAR Project No. : **953130**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **10/27/95**

Project Description : Analysis of two solid samples (KWRP C-of-C #2008).

Sample ID : <u>"DSE Cake, 28595"</u>						
Sampled By : JW of KWRP			Date Received : 10/13/95			
Sample Date : 10/12/95			Sample Type : solid			
Sample Time : 6:45am			KAR Sample No. : 953130-01			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.51	mg/kg	EPA 7470A	10/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/25/95	MSZ	

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ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 953130

Date Reported : 10/27/95

Project Description : Analysis of two solid samples (KWRP C-of-C #2008).

Sample ID : "DSE Cake, 28695"						
Sampled By : JW of KWRP				Date Received : 10/13/95		
Sample Date : 10/13/95				Sample Type : solid		
Sample Time : 6:45am				KAR Sample No. : 953130-02		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.56	mg/kg	EPA 7470A	10/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	10/25/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/25/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **953054**

Date Reported : **10/18/95**

Client: **Kalamazoo Water Reclamation Plant**

Project Description : Analysis of five samples (KWRP C-of-C #2131 & 2005).

Sample ID : <u>"MUN. Primary Influent, PIN27895"</u>						
Sampled By : <i>PM of KWRP</i>				Date Received : 10/5/95		
Sample Date : 10/5/95				Sample Type : aqueous		
Sample Time : 6:10am				KAR Sample No. : 953054-01		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	=
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/9/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : 953054

Client: Kalamazoo Water Reclamation Plant

Date Reported : 10/18/95

Project Description : Analysis of five samples (KWRP C-of-C #2131 & 2005).

Sample ID : <u>"Tertiary Effluent, TE27895"</u>						
Sampled By : PM of KWRP Sample Date : 10/5/95 Sample Time : 6:30am				Date Received : 10/5/95 Sample Type : aqueous KAR Sample No. : 953054-02		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	-
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/9/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **953054**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **10/18/95**

Project Description : Analysis of five samples (KWRP C-of-C #2131 & 2005).

Sample ID : <u>"Industrial Influent, II27895"</u>						
Sampled By : PM of KWRP				Date Received : 10/5/95		
Sample Date : 10/5/95				Sample Type : aqueous		
Sample Time : 6:40am				KAR Sample No. : 953054-03		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	10/9/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/9/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 953054

Date Reported : 10/18/95

Project Description : Analysis of five samples (KWRP C-of-C #2131 & 2005).

Sample ID : "Belt Press Cake, BPC27895"						
Sampled By : PM of KWRP			Date Received : 10/5/95			
Sample Date : 10/5/95			Sample Type : solid			
Sample Time : 6:20am			KAR Sample No. : 953054-04			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.06	mg/kg	EPA 7471A	10/17/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/11/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : 953054

Client: Kalamazoo Water Reclamation Plant

Date Reported : 10/18/95

Project Description : Analysis of five samples (KWRP C-of-C #2131 & 2005).

Sample ID : <u>"Incinerator Ash, IA27895"</u>						
Sampled By : PM of KWRP				Date Received : 10/5/95		
Sample Date : 10/5/95				Sample Type : solid		
Sample Time : 6:20am				KAR Sample No. : 953054-05		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	10/17/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/11/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 953018

Date Reported : 10/16/95

Project Description : Analysis of five samples (KWRP C-of-C #002129 & 002130).

Sample ID : <u>"Mun. Primary Inf., PIN 27695"</u>						
Sampled By : PM of KWRP				Date Received : 10/3/95		
Sample Date : 10/3/95				Sample Type : aqueous		
Sample Time :				KAR Sample No. : 953018-01		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/6/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : 953018

Date Reported : 10/16/95

Client: Kalamazoo Water Reclamation Plant

Project Description : Analysis of five samples (KWRP C-of-C #002129 & 002130).

Sample ID : <u>"Industrial Influent, IPI 27695"</u>						
				Date Received : 10/3/95		
				Sample Type : aqueous		
Sample Time :				KAR Sample No. : 953018-02		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/6/95	MSZ	

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KAR Laboratories, Inc.

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ANALYTICAL REPORT

KAR Project No. : 953018

Client: Kalamazoo Water Reclamation Plant

Date Reported : 10/16/95

Project Description : Analysis of five samples (KWRP C-of-C #002129 & 002130).

Sample ID : <u>"Tertiary Effluent, TE 27695"</u>						
				Date Received :	10/3/95	
				Sample Type :	aqueous	
				KAR Sample No. :	953018-03	
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	10/6/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/6/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : 953018

Client: Kalamazoo Water Reclamation Plant

Date Reported : 10/16/95

Project Description : Analysis of five samples (KWRP C-of-C #002129 & 002130).

Sample ID : <u>"Belt Press Cake, BPC 27695"</u>						
Sampled By : PM of KWRP			Date Received : 10/3/95			
Sample Date : 10/3/95			Sample Type : solid			
Sample Time :			KAR Sample No. : 953018-04			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.19	mg/kg	EPA 7471A	10/10/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/11/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : **953018**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **10/16/95**

Project Description : Analysis of five samples (KWRP C-of-C #002129 & 002130).

Sample ID : "Incinerator Ash, IA 27695"						
Sampled By : <i>PM of KWRP</i>				Date Received : 10/3/95		
Sample Date : 10/3/95				Sample Type : solid		
Sample Time :				KAR Sample No. : 953018-05		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	10/10/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	10/11/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	10/11/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

CHAIN OF C TODY RECORD

N 002130

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**
**1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157**

SAMPLERS:
(Signature)

PURPOSE OF ANALYSIS

P.M.

PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME <u>10/3/95</u>	RECEIVED BY: (Signature)	DATE/TIME <u>10/3/95 - 1:40 p.m.</u>	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<u>S. H. L. - (Signature)</u>	<u>1:40 AM</u>	<u>S. H. L.</u>					
2 RELINQUISHED BY: (Signature)	DATE/TIME <u>10/3/95</u>	RECEIVED BY: (Signature)	DATE/TIME <u>10/3/95 2:05 p.m.</u>	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<u>S. H. L.</u>	<u>2:05 p.m.</u>	<u>J. B. Maxson</u>	<u>10/3/95 2:05 p.m.</u>				

REMARKS:

CHAIN OF CUSTODY RECORD

Nº J2129

**CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES**

SAMPLERS: (Signature)	PURPOSE OF ANALYSIS:
<i>Terry Manchester</i>	<i>Hg</i>

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	10/3/95 1:40 pm	S. HL	10/3/95 1:40 pm				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. HL	10/3/95 2:05 p	J. B. Maxson	10/3/95 2:05 p				

REMARKS:

ANALYTICAL REPORT

KAR Project No. : 952763

Client: Kalamazoo Water Reclamation Plant

Date Reported : 09/21/95

Project Description : *Analysis of six samples (KWRP C-of-C #002126 & 002128).*

Sample ID : <u>"Mun. Primary Influent, PIN 25195"</u>						
Sampled By : TW of KWRP					Date Received : 9/8/95	
Sample Date : 9/8/95					Sample Type : aqueous	
Sample Time : 7:00am					KAR Sample No. : 952763-01	
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/12/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 952763

Date Reported : 09/21/95

Project Description : Analysis of six samples (KWRP C-of-C #002126 & 002128).

Sample ID : <u>"Industrial Influent, II 25195"</u>						
Sampled By : TW of KWRP				Date Received : 9/8/95		
Sample Date : 9/8/95				Sample Type : aqueous		
Sample Time : 7:00am				KAR Sample No. : 952763-02		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/12/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : **952763**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **09/21/95**

Project Description : **Analysis of six samples (KWRP C-of-C #002126 & 002128).**

Sample ID : <u>"Tertiary Effluent, TE 25195"</u>						
Sampled By : <i>TW of KWRP</i>				Date Received : <i>9/8/95</i>		
Sample Date : <i>9/8/95</i>				Sample Type : <i>aqueous</i>		
Sample Time : <i>7:00am</i>				KAR Sample No. : <i>952763-03</i>		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/12/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : 952763

Client: Kalamazoo Water Reclamation Plant

Date Reported : 09/21/95

Project Description : Analysis of six samples (KWRP C-of-C #002126 & 002128).

Sample ID : <u>DSE Press Cake, DSE 25195</u>						
Sampled By : TW of KWRP				Date Received : 9/8/95		
Sample Date : 9/8/95				Sample Type : solid		
Sample Time : 7:00am				KAR Sample No. : 952763-04		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.30	mg/kg	EPA 7471A	9/21/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/14/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : 952763

Client: Kalamazoo Water Reclamation Plant

Date Reported : 09/21/95

Project Description : Analysis of six samples (KWRP C-of-C #002126 & 002128).

Sample ID : <u>"Belt Press Cake, BPC 25195"</u>						
Sampled By : TW of KWRP			Date Received : 9/8/95			
Sample Date : 9/8/95			Sample Type : solid			
Sample Time : 7:00am				KAR Sample No. : 952763-05		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.06	mg/kg	EPA 7471A	9/21/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/14/95	MSZ	

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ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 952763

Date Reported : 09/21/95

Project Description : Analysis of six samples (KWRP C-of-C #002126 & 002128).

Sample ID : <u>"Incinerator Ash, IA 25195"</u>						
				Date Received :	9/8/95	
				Sample Type :	solid	
				KAR Sample No. : 952763-06		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	9/21/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/14/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : **952687**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **09/15/95**

Project Description : *Analysis of six samples (KWRP C-of-C #002101 & 002102).*

Sample ID : <u>"Mun. Primary Inf., PIN 24495"</u>						
Sampled By : <i>TW of KWRP</i>				Date Received : 9/1/95		
Sample Date : 9/1/95				Sample Type : aqueous		
Sample Time : 7:00am				KAR Sample No. : 952687-01		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/12/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 952687

Date Reported : 09/15/95

Project Description : Analysis of six samples (KWRP C-of-C #002101 & 002102).

Sample ID : <u>"Industrial Inf., II 24495"</u>						
Sampled By : <i>TW of KWRP</i>			Date Received : 9/1/95			
Sample Date : 9/1/95			Sample Type : aqueous			
Sample Time : 7:00am			KAR Sample No. : 952687-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	9/12/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/12/95	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

Client: *Kalamazoo Water Reclamation Plant*

KAR Project No. : **952687**

Date Reported : **09/15/95**

Project Description : *Analysis of six samples (KWRP C-of-C #002101 & 002102).*

Sample ID : "Tertiary Eff., TE 24495"							
Sampled By : <i>TW of KWRP</i>				Date Received : 9/1/95			
Sample Date : 9/1/95				Sample Type : aqueous			
Sample Time : 7:00am				KAR Sample No. : 952687-03			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments	
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	9/12/95	MSZ		
PCB Aroclors, total	NA		EPA 8080A	9/12/95	MSZ		

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ANALYTICAL REPORT

KAR Project No. : 952687

Client: Kalamazoo Water Reclamation Plant

Date Reported : 09/15/95

Project Description : Analysis of six samples (KWRP C-of-C #002101 & 002102).

Sample ID :	<u>"DSE Press Cake, DSE 24495"</u>					
Sampled By :	TW of KWRP					Date Received : 9/1/95
Sample Date :	9/1/95					Sample Type : solid
Sample Time :	7:00am					KAR Sample No. : 952687-04
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.33	mg/kg	EPA 7471A	9/8/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/14/95	MSZ	

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ANALYTICAL REPORT

Client: *Kalamazoo Water Reclamation Plant*

KAR Project No. : **952687**

Date Reported : **09/15/95**

Project Description : Analysis of six samples (KWRP C-of-C #002101 & 002102).

Sample ID : "Belt Press Cake, BPC 24495"						
Sampled By : <i>TW of KWRP</i>				Date Received : 9/1/95		
Sample Date : 9/1/95				Sample Type : solid		
Sample Time : 7:00am				KAR Sample No. : 952687-05		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.16	mg/kg	EPA 7471A	9/8/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/14/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **952687**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **09/15/95**

Project Description : Analysis of six samples (KWRP C-of-C #002101 & 002102).

Sample ID : "Incinerator Ash, IA 24495"						
Sampled By : TW of KWRP				Date Received : 9/1/95		
Sample Date : 9/1/95				Sample Type : solid		
Sample Time : 7:00am				KAR Sample No. : 952687-06		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	9/8/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	9/14/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	9/14/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **952478**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : **08/28/95**

Project Description : *Analysis of six samples (KWRP C-of-C #1992 & 1998).*

Sample ID : "MUN. Primary Influent, PIN22795"						
Sampled By : <i>TW of KWRP</i>				Date Received : 8/15/95		
Sample Date : 8/15/95				Sample Type : aqueous		
Sample Time :				KAR Sample No. : 952478-01		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	8/27/95	KTL	
PCB Aroclors, total	NA		EPA 8080A	8/27/95	KTL	

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ANALYTICAL REPORT

KAR Project No. : 952478

Client: Kalamazoo Water Reclamation Plant

Date Reported : 08/28/95

Project Description : *Analysis of six samples (KWRP C-of-C #1992 & 1998).*

Sample ID : <u>"Tertiary Effluent, TEF22795"</u>						
Sampled By : TW of KWRP			Date Received : 8/15/95			
Sample Date : 8/15/95			Sample Type : aqueous			
Sample Time :			KAR Sample No. : 952478-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/25/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **952478**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **08/28/95**

Project Description : *Analysis of six samples (KWRP C-of-C #1992 & 1998).*

Sample ID : "Industrial Influent, II22795"						
Sampled By : TW of KWRP			Date Received : 8/15/95			
Sample Date : 8/15/95			Sample Type : aqueous			
Sample Time :			KAR Sample No. : 952478-03			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	8/25/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/25/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **952478**

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Date Reported : **08/28/95**

Project Description : *Analysis of six samples (KWRP C-of-C #1992 & 1998).*

Sample ID : "DSE Press Cake, DSE22795"						
Sampled By : TW of KWRP			Date Received : 8/15/95			
Sample Date : 8/15/95			Sample Type : solid			
Sample Time :			KAR Sample No. : 952478-04			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	8/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclors, total	<330	ug/kg	EPA 8080A	8/27/95	KTL	

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ANALYTICAL REPORT

Client: *Kalamazoo Water Reclamation Plant*

KAR Project No. : **952478**

Date Reported : **08/28/95**

Project Description : *Analysis of six samples (KWRP C-of-C #1992 & 1998).*

Sample ID : **"Belt Press Cake, BPC22795"**

Sampled By : *TW of KWRP*

Date Received : **8/15/95**

Sample Date : **8/15/95**

Sample Type : **solid**

Sample Time :

KAR Sample No. : **952478-05**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	8/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	8/27/95	KTL	
PCB Aroclors, total	<330	ug/kg	EPA 8080A	8/27/95	KTL	

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ANALYTICAL REPORT

Client: *Kalamazoo Water Reclamation Plant*

KAR Project No. : **952478**

Date Reported : **08/28/95**

Project Description : *Analysis of six samples (KWRP C-of-C #1992 & 1998).*

Sample ID : "Incinerator Ash, IA22795"							
Sampled By : <i>TW of KWRP</i>				Date Received : 8/15/95			
Sample Date : 8/15/95				Sample Type : solid			
Sample Time :				KAR Sample No. : 952478-06			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments	
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	8/23/95	MTM		
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	8/27/95	KTL		
PCB Aroclors, total	<330	ug/kg	EPA 8080A	8/27/95	KTL		

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ANALYTICAL REPORT

KAR Project No. : **952439**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **08/24/95**

Project Description : *Analysis of six samples (KWRP C-of-C #1986 & 1987).*

Sample ID : "MUN. Primary Influent PIN 22195"						
Sampled By : KWRP				Date Received : 8/10/95		
Sample Date : 8/9/95				Sample Type : aqueous		
Sample Time : 7:00am				KAR Sample No. : 952439-01		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	8/19/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/19/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **952439**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **08/24/95**

Project Description : Analysis of six samples (KWRP C-of-C #1986 & 1987).

Sample ID : "Tertiary Effluent, TE 22195"						
Sampled By : KWRP				Date Received : 8/10/95		
Sample Date : 8/9/95				Sample Type : aqueous		
Sample Time : 7:00am				KAR Sample No. : 952439-02		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/18/95	MSZ	

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ANALYTICAL REPORT

Client: Kalamazoo Water Reclamation Plant

KAR Project No. : 952439

Date Reported : 08/24/95

Project Description : Analysis of six samples (KWRP C-of-C #1986 & 1987).

Sample ID : <u>"Industrial Influent, II 22195"</u>						
				Date Received :	8/10/95	
				Sample Type :	aqueous	
				KAR Sample No. : 952439-03		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	8/18/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/18/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : **952439**

Client: **Kalamazoo Water Reclamation Plant**

Date Reported : **08/24/95**

Project Description : **Analysis of six samples (KWRP C-of-C #1986 & 1987).**

Sample ID : <u>"DSE Press Cake, DSE 22195"</u>						
Sampled By : <i>KWRP</i>				Date Received : <i>8/10/95</i>		
Sample Date : <i>8/9/95</i>				Sample Type : <i>solid</i>		
Sample Time : <i>7:00am</i>				KAR Sample No. : <i>952439-04</i>		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	8/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/18/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : 952439

Client: Kalamazoo Water Reclamation Plant

Date Reported : 08/24/95

Project Description : Analysis of six samples (KWRP C-of-C #1986 & 1987).

Sample ID : <u>"Belt Press Cake, BPC 22195"</u>						
Sampled By : KWRP					Date Received :	8/10/95
Sample Date : 8/9/95					Sample Type :	<i>solid</i>
Sample Time : 7:00am					KAR Sample No. : 952439-05	
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	8/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/18/95	MSZ	

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ANALYTICAL REPORT

KAR Project No. : 952439

Client: Kalamazoo Water Reclamation Plant

Date Reported : 08/24/95

Project Description : Analysis of six samples (KWRP C-of-C #1986 & 1987).

Sample ID : <u>"Incerator Ash, IA 22195"</u>						
Sampled By : KWRP				Date Received : 8/10/95		
Sample Date : 8/9/95				Sample Type : solid		
Sample Time : 7:00am				KAR Sample No. : 952439-06		
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	8/23/95	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080A	8/18/95	MSZ	
PCB Aroclors, total	NA		EPA 8080A	8/18/95	MSZ	

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